Influence of managerial ethical leadership on caring climate and employee behaviour in South African SMMEs

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DECLARATION

I, Emmelda Mmamogo Rakoma, declare that the title “INFLUENCE OF MANAGERIAL ETHICAL LEADERSHIP ON CARING CLIMATE AND EMPLOYEE BEHAVIOUR IN SOUTH AFRICAN SMMES” is my original work. I acknowledged all the sources used in this study in a comprehensive reference list.

I confirm that this thesis has not been previously submitted by me to any other institution of higher learning.

EM Rakoma — 02/02/2026

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SIGNATURE DATE

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Emmelda Mmamogo Rakoma
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ABSTRACT

Ethical leadership in business has become a burning topic given the high levels of unethical conduct and corruption in the business world today. Businesses are becoming more aware of the devastation that unethical leadership practices cause and the damage it does to their reputation and profitability. The contemporary business community requires leaders who can provide ethical guidance that ensures. South African businesses, including SMMEs, have also identified the need for ethical leadership to curb unethical conduct and corruption, and to cultivate a caring climate that inspires employee ethical behaviour. Social Learning Theory and Social Exchange Theory provided the basis for this understanding the influential role of managers as ethical leaders and role models. Given this context, this study examined the effect of ethical leadership on the development of employee ethical behaviour and a caring climate.

South African SMMEs are major contributors to economic growth, employing between 50% and 60% of the workforce and contributing between 34% to 40% of the GDP. Effective management, engaging and effective communication, and beneficial inclusivity must become the norm to sustain business success. Financial limitations can be a significant barrier for South African SMMEs, and this can easily lead to unethical conduct that threatens the sustainability of the business and hinders its potential growth. Leadership sets the guiding example of ethical conduct for employees, establishing the ethical climate of the business. Ethical leadership is instrumental in resolving the conflicts that managers and owners face in business, as well as in improving strategies, marketing, and strategic planning.

The target population for this study was non-managerial employees working for South African SMMEs. The sampling frame employed a non-probability judgement sample. A single cross-sectional, non-probability convenience sampling technique was used and aligned with the SMMEs criteria of 1 to 250 employees in the business. The data were gathered by an international research company. The questionnaire was a user-friendly, self-administered electronic questionnaire. Participants first answered screening questions to ensure their eligibility to proceed with the questionnaire. A six-point Likert-type scale was used to capture participants' responses. The Statistical Package for the Social Sciences (SPSS) was used to capture and analyse the data. Statistical tests included confirmatory factor analysis, descriptive statistical analysis, correlation analysis, collinearity diagnostics, regression analysis, and Analysis of Moment Structures (AMOS).

The study found that ethical leadership plays a significant and positive role in shaping both a caring climate and employees' ethical behaviour in South African SMMEs. Using a validated

three-factor measurement model and a structural model, the results showed that ethical leadership has a significant effect on the perceptions of a caring climate and employee ethical behaviour. ANOVA results further revealed that employees in younger and growing businesses report more favourable perceptions of ethical leadership than those in established businesses. However, for a caring climate, employees in growing firms reported more favourable perceptions than those in established businesses. Furthermore, younger employees reported higher levels of ethical behaviour than middle-aged employees. Overall, the findings confirm the influence of ethical leadership on ethical organisational outcomes and highlight meaningful differences across business maturity and employee age groups.

Key terms: Managerial ethical leadership**,** Caring climate, Employee ethical behaviour, SMMEs

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LIST OF ABBREVIATIONS

NWU	North-West University
SLT	Social learning theory
SET	Social exchange theory
SMMEs	Small, medium and micro enterprises
CQ	Cultural intelligence
POPIA	Protection of Personal Information Act
ECS	Ethical Caring Scale

CHAPTER 1 INTRODUCTION AND BACKGROUND TO THE STUDY

1.1 INTRODUCTION

Managerial ethical leadership has become prominent in today's business world due to the moral complexities in business. These moral complexities include social expectations, honest competition, protection, legal rights, and social responsibilities (Cheteni & Umejesi, 2025:9). The failure to adapt to these complexities results in unethical leadership that lacks sympathy and fosters a profit-driven focus, which has been normalised by power-hungry leaders today (Taba *et al*., 2019:70). Managerial ethical leadership provide leaders with two essential goals: firstly, to clarify and illustrate ethical dimensions encountered in daily operation (descriptive-ethical task) and secondly, to create and uphold ethical principles which demonstrates responsible leadership (normative-ethical task) (Enderle, 1987:658). Brown *et al*. (2005:120) defined managerial ethical leadership as the modelling of socially or ethically appropriate behaviour through one's own actions and interactions with others, and the encouragement of similar behaviour in followers through communication, reinforcement, and decision making. Therefore, managerial ethical leadership focuses specifically on the influential role of the manager in the daily operations of the business and the influential role that managers have on employee ethical behaviour, as opposed to teh general ethical leadership by any business leader. Leaders who manage ethically by relying on managerial ethical leadership, navigate moral complexities in business by following practices that encourage individualised consideration, intellectual stimulation, inspirational motivation, and idealised influence (Bass, 1990:1).

Magua (2019: II) argues that the moral identity of a managerial ethical leader is transferable to a business's ethics climate due to the consistency of their character in the workplace. Moral identity is defined as an understanding of the self that is structured around a collection of moral characteristics or values (Aquino & Reed, 2002:1423). Contrarily, unethical leaders exhibit unethical practices due to a lack of integrity, reliability, rationality, social justice, and fairness (Magau, 2019: II). When unethical leaders prioritise their own interests, ethics standards become a luxury of the past, normalising unethical behaviour (Mantzaris & Pillay, 2019:41).

These unethical behaviours can cause devastation in any business. In the international context, prominent businesses have exhibited unethical behaviour due to a lack of managerial ethical leadership, leading to scandals that threaten the long-term sustainability of their businesses (Enwereuzor *et al*., 2020:1). Examples of these ethics scandals include fraud and mismanagement at companies like Enron, WorldCom, Adelphia, Siemens, and Tyco International. These examples were covered extensively in global media and created awareness

of the importance of cultivating ethical business practices (Boateng & Lui, 2025:6). In the South African context, businesses have normalised unethical conduct (Diop *et al.,* 2025:92). Some examples of unethical conduct include the fraud and corruption of South African companies such as Steinhoff, VBS Bank, KPMG, and Eskom (Mlambo *et al*., 2023:35-36). Despite these ethics scandals, South Africa has clear guidelines for ethical business practices. The King IV report encourages honesty at work, strong employee performance, good oversight, and credibility (Bautista & Uy, 2023:175). The King IV report provides clear ethics guidelines for ethical leadership and ethical corporate governance, which would create an ethical climate (Bhana & Suknunan, 2022:93). The King VI report is an example of official guidelines that support and highlight the importance of managerial ethical leadership and the cultivation of a caring climate (Bhana & Suknunan, 2022:93). The benefit of a caring climate is that it fosters relationships centred on trust, which results in continuous reciprocation through honest obligation (Haq *et al*., 2021:1074). The power of a caring climate lies in its inclusivity, acceptance of diversity, fairness, equal treatment, and compassion, both in society and in business practices.

Some of the aspects that encourage a caring climate include diversity, recognition, respect, acceptance, and tolerance of individual uniqueness and differences (Ohunakin *et al*., 2018:93). These aspects centre on the notion of inclusion, which promotes employees' participation in the company's systems and processes (Downey *et al*., 2015:1). A caring climate ensures freedom of expression, increased productivity, retention of employees, and long-term financial success for companies (Jha & Singh, 2019:388). A caring climate also removes barriers in the minds of employees, allowing them to raise their voices, and introduces a trustworthy and healthy social exchange context (Ye *et al*., 2023:1129). Haldorai *et al*. (2020:2) argue that a caring climate is a prime indicator of a positive organisational culture and climate. Moreover, a caring climate creates the best opportunity for a successful business, which serves the true purpose of exceptional service, taking into consideration the needs of employees, society, and the country.

The above context highlights the directive to managerial ethical leaders to cultivate a caring climate that empowers employees to uphold ethics standards and principles without pressure while attaining business goals (Kia *et al*., 2021: 1722). Empowered employees who have a strong, ethical, caring climate, are more satisfied and will remain loyal to the business, which ensures employee ethical behaviour (Ganji *et al*. 2022:312). This is because ethical decision makers, or managerial ethical leaders, establish ethical relationships of mutual cooperation (Jha & Singh, 2019:389). Employee ethical behaviour is rooted in a caring climate with a sense of belonging that fosters active employee engagement in making ethical decisions (Ibarra & Martinez, 2023:2). Employee engagement is attained when employees feel they are fairly treated in all business procedures, which further ensures job satisfaction, commitment and performance (Daskin & Pala,

2023:18; Parboteeah *et al*., 2023:2; Noermijati *et al*., 2021:238). Every organisation seeks employee ethical behaviour, because ethical businesses attract customers and are consistent in their business practices, with the quality of products or their service delivery (Magau, 2019:15; Gomezel & Stritar, 2021:160). Almohtasb *et al*. (2021:5) agree that employees are important stakeholders of the business. They should be encouraged to actively engage in ethical decision making. Thus, the principles and values of a managerial ethical leader who fosters a caring climate and encourages ethical behaviour among employees, are instrumental for future business success, regardless of the business structure (Lasthuizen van Eden & Vivier, 2025:112).

The business success of small, medium, and micro enterprises (SMMEs) also relies on managerial ethical leadership (Amah & Oyetuunde, 2020:890). However, due to financial challenges (access to funds) and the burden of complying with regulations, especially in micro-businesses, managerial ethical leadership becomes a challenge (Botha *et al*., 2021:166-167). The means by which managerial ethical leaders are encouraged to overcome these challenges is by encouraging a competitive environment or resolving to fraud and bribery (Botha *et al*., 2021:166-167).

However, fostering a caring climate through managerial ethical leadership can prevent ethics dilemmas in highly competitive markets (Abdulrahman & Amoush, 2020:38). Furthermore, managerial ethical leadership that encourages a caring climate supports essential characteristics such as cooperation and participation with employees. This can reduce problems and dilemmas, increase efficiency and effectiveness, enhance innovation and employees' satisfaction compared to traditional authoritarian approaches to leadership (Abdulrahman & Amoush, 2020:38). A more traditional authoritarian approach to leadership encourages individualism and dominance. The power of this approach lies in the idea that 'I should fix things myself' because 'asking for help shows weakness' (Bush 2020:1).

A caring climate that is cultivated by managerial ethical leadership looks beyond monetary value and recognises the crucial role that communities and broader society play in the long-term success of a business. In other words, true ethical business practices ensure community satisfaction, and a managerial ethical leader's primary responsibility is to adopt a holistic approach that enhances ethical business success and community needs. Managerial ethical leaders must thus uphold ethics and morality as essential pillars for the benefit of employees, the business, and the larger community (Kaffashpoor & Sadeghian, 2020:1). The study's aim was to examine how managerial ethical leadership affects the establishment of a caring climate and the ethical behaviour of employees in South African SMMEs.

1.2 BACKGROUND AND PROBLEM STATEMENT

Al Halbusi *et al*.'s (2021:18) study reflects that managerial ethical leaders serve as the foundation for ethical conduct because they demonstrate ethical practices that shape a caring climate, which in turn instils positive ethical values in employees. A caring climate is therefore predetermined by a leader who values ethical principles and does not feel pressured to compromise their own values for organisational objectives (Caldeira & Infante-More, 2025). The strength of such a manager lies in their ability to identify and cultivate a caring climate that instils the value of morality and humanity, which empowers the future development of ethical leaders.

Noermijati *et al*. (2021:232) similarly state that employee ethical behaviour depends on managerial ethical leaders, and the 'adoption' of a caring climate reflects the management team. A caring climate sets the tone for ethical behaviour because when employees perceive a caring climate, they are likely to reciprocate by putting more care into their work in terms of efficiency and productivity (Molnar *et al*., 2021:11). Leaders are the builders of the foundation of an organisation because they direct either the building or the destruction of the foundation for effective business success. A caring climate is one that fosters self-value, belief, and determination to achieve business success without compromising the community it serves. When managerial ethical leaders are present in a caring climate, unethical conduct decreases (Gadi *et al*., 2022:3) because it goes against the standards, morals and beliefs of the organisation. Furthermore, Gadi *et al*. (2022:3) highlight that an ethical climate is a 'regulatory tool' that allows for the diversity of employees but aims to build consensus on acceptable behaviour. Al Halbusi *et al*. (2019:30) argue that the development of a caring climate is essential to support ethical behaviour in an organisation because the climate provides clear values, structure, and ethics guidance. Thus, a managerial ethical leader is a crucial figure in the creation of a caring climate because that the example inspires determination and willpower.

Employee ethical behaviour seeks direction and reflects the behaviour of ethical leaders. Such leaders make fair and balanced decisions and assess the appropriateness of decisions against their ethical consequences (Mishra & Tikoria, 2021:439). Measuring the ethics climate is the "most popular way" to evaluate the ethics orientation of any business (Parboteeah *et al*., 2023:1). When an ethical leader creates a strong ethical climate, adherence is achieved, but a weak climate lacks support in achieving normative expectations and discourages commitment (Su & Hahn, 2022:3). Canavesi and Minelli (2021:431) state that ethical leadership entails characteristics such as personal commitment and dedication to work, availability, support and a management approach in complex situations. This fosters a caring, inclusive, engaging, and transparent climate that promotes ethical conduct. Managerial ethical leadership, integrity, and personal conduct centre

on morality and enhance moral correctness, employees' learning and development opportunities, employees' autonomy, work recognition, positive relationships, and clear and coherent objectives (Fremeaux & Pavageau, 2022:58).

In the South African context, the lack of managerial ethical leadership has been a cause for concern, particularly in the context of poor governance, ineffective service delivery, and inadequate law enforcement (Mkhize, 2023:267). This is evident in South Africa's socio-economic transformation challenges, where low levels of trust in political and economic leadership undermine the effective implementation of government policies due to weak coordination and collaboration (Ndalamba, 2019:37). These challenges also weaken managerial ethical leadership, as profit maximization often takes precedence over sustainable and inclusive ethical business practices (Sookdawoor & Grobler, 2022:2). Consequently, socio-economic pressures hinder ethical leadership's ability to promote transparency, trust, stakeholder engagement, sustainable development, and strong leadership values (Cheteni & Umejesi, 2025:1; Ndalamba, 2019:37).Pillay *et al*. (2023:155-156) argue that political leaders and policymakers with influence in government and parliament often shape legislation so that it would suit their business allies as favourable treatment would ensure support. This practice has become a corrupt transaction between the government and corrupt elites (Pillay *et al*., 2023:155-156). Mlambo *et al*. (2023:37) confirm that South Africa's legislative system was and still is one of the best on the continent, but unethical conduct has continued to increase, which supports Pillay *et al*.'s (2023) findings. The above highlights that loss of ethics standards, lack of honest and cohesive leadership, organisational gaps and weaknesses, individual or group greed, political or organisational opportunities, an immunity for offenders are some of the foundational causes of corruption (Mantzaris & Pillay, 2019:40). Unethical conduct is instilled by leaders who seek to maximise profitability at the expense of the community and country they serve. They cultivate an egotistic climate that damages the foundation of inclusivity, reform, equality, and basic services for the country and businesses in South Africa (Kugara & Mdhluli, 2024:183).

In the SMMEs context, unethical leadership become visible in the form of unethical conduct and underground activities that create a dependency on unethical success (Musara & Nieuwenhuizen, 2020:198). This means that it becomes easier for an SMMEs to find profitable success through unethical conduct. The openness and free access in SMMEs can be a factor that puts SMMEs more at risk for unethical conduct because of the avoidance of failure and the reliance on leader characteristics (Almohtasb *et al*., 2021:3). SMMEs depend greatly on their leaders' personal characteristics, which define leadership and business practices (ethical or unethical) (Rasheed *et al*., 2021:1). Fatoki (2020:65) argues that a managerial ethical leader serves as a moral role model who promotes acceptable behaviour by distinguishing between good and bad, moral and immoral,

and fair and unfair actions through ethical guidance. Managerial ethical leadership remains necessity in SMMEs, but there is the challenge of coupling this with skilful leadership with a educational background in business management to ensure business growth, survival and sustainability (Mhlongo, 2021:3). These factors are some of the root causes of unethical conduct, and this explains the ethics crisis in SMMEs (Lingwati & Mamabolo, 2023:1). Zsigmond et al. (2022:390) suggest that another contributing factor to the development of an egoistic climate is the close relationships with suppliers and among employees, combined with a weak moral awareness resulting from a lack of genuine interpersonal closeness. Thus, a managerial ethical leader is a 'navigator' who guides employees in taking ethical actions, inspires ethical excellence, and balances employees' relationships with suppliers in a way that serves the best interests of both the business and the community (Rasheed *et al*., 2025:328). Koziol-Nadolna (2020:1) confirms that ethical leaders wield social power and influence that encourages employees to engage in desired behaviours, specifically ethical conduct. Managerial ethical leaders serve as key sources of guidance, and their cognitive traits play an important role in facilitating employees' learning (Brown *et al*., 2005:117; Guo *et al*., 2023:32).

The continuous unethical conduct of leaders has prompted researchers to develop the behavioural theory as a way to investigate managerial ethical leadership that enhances employee ethical behaviour, managerial efficiency, and instil ethics in daily activities (Al Halbusi *et al*., 2023:1; Khokhar *et al*., 2020:472; Kaffashpoor & Sadeghian, 2020:1). For managerial ethical leadership to be influential, a caring climate must be established (Al Halbusi *et al*., 2021:1). The ethical climate scale (ECS) can be used as a behaviour-theoretical tool to assess whether a workplace has a caring climate and is suitable for both qualitative and quantitative approaches (Okumoto *et al*., 2020:1; Nurtati *et al*., 2020:71; Hamoudah *et al*., 2021:5). ECS measures behaviour in the workplace (Victor & Cullen, 1988:2). This study set out to examine how managerial ethical leadership in South African SMMEs influences a caring climate and employee ethical behaviour.

1.3 RESEARCH OBJECTIVES

The objectives formulated for this study are discussed below.

1.3.1 Primary objective

The primary objective of this study was to determine the influence of managerial ethical leadership on a caring climate and employee ethical behaviour at South African SMMEs.

1.3.2 Theoretical objectives

The following theoretical objectives were identified to achieve the primary objective:

- The study set out to examine the importance of SMMEs in the South African context and the crucial role of ethical leadership in SMMEs.
- This study aimed to conceptualise managerial ethical leadership and the caring climate based on organisational and leadership theories, especially in the context of South African SMMEs.
- The research explored the relationship between managerial ethical leadership and the caring climate by reviewing both international and South African literature.
- The study defined SMMEs according to the number of employees and sought to understand the influence of variables such as the years of operation and the age of the employees on the perceptions of employees' ethical behaviour and a caring climate.
- Finally, the study endeavoured to situate the study within social learning theory (SLT) and social exchange theory (SET) to explain how managerial ethical leadership encourages a caring climate and fosters ethical behaviour among employees.

1.4 EMPIRICAL OBJECTIVES

In pursuit of the primary objective, the empirical objectives were identified to:

- Determine employees' perceptions of managerial ethical leadership and the caring climate in South African SMMEs;
- Determine employees' perceptions of their own ethical behaviour in South African SMMEs;
- Determine the influence of managerial ethical leadership on a) caring climate, and b) employee ethical behaviour in South African SMMEs;
- Determine the differences in a) managerial ethical leadership, b) caring climate, and c) employee ethical behaviour between South African SMMEs based on the businesses' years of operation; and
- Determine the difference in ethical behaviour of employees between South African SMMEs based on their age.

1.5 HYPOTHESES

In this study, the following hypotheses were developed:

H_o1: Managerial ethical leadership does not have a significant direct influence on the caring climate of SMMEs.

H_a1: Managerial ethical leadership has a significant direct influence on the caring climate of SMMEs.

H_o2: Managerial ethical leadership does not have a significant direct influence on the ethical behaviour of SMME employees.

H_a2: Managerial ethical leadership has a significant direct influence on the ethical behaviour of SMME employees.

H_o3: There are no significant differences in a) managerial ethical leadership, b) caring climate, and c) employees' ethical behaviour between South African SMMEs based on the businesses' years of operation.

H_a3: There are significant differences in a) managerial ethical leadership, b) caring climate, and c) employees' ethical behaviour between South African SMMEs based on the businesses' years of operation.

H_o4: There is no significant difference in the ethical behaviour of employees between South African SMMEs based on their age.

H_a4: There is a significant difference in the ethical behaviour of employees between South African SMMEs based on their age.

1.6 RESEARCH METHODOLOGY

1.6.1 Literature investigation

The empirical investigation entailed the following:

The literature investigation for this study examined secondary data, including relevant textbooks and journal articles, to establish a basis for this research. Sources were accessed via the NWU's online academic databases and journal articles. Secondary data was used for their reliability, validation, and diverse insights from different researchers, providing analyses from different approaches. The accreditation of the NWU database aligns with the Department of Higher Education and Training (DHET) and meets the specified criteria. It is compiled from seven lists: the Independent Basis Service Set (IBSS), Scopus, the Norwegian list, Web of Science, SciELO South Africa, the Directory of Open Access Journals (DOAJ), and the DHET list.

1.6.1.1 Research design

The study relied on a descriptive research design accompanied by a single cross-sectional design. This aligned with the primary objective of the study, which was to determine the influence of managerial ethical leadership on a caring climate and employee ethical behaviour at South African SMMEs. Both a literature review and empirical study was conducted to give depth to the study. For the empirical study, quantitative research was conducted with the use of a user-friendly, electronic self-administered survey.

1.6.1.2 Target population

The target population selected for this study included non-managerial employees employed by SMMEs in South Africa. To align with the definition of SMMEs and the established criteria, the study targeted SMMEs with no more than 250 employees in the business. SMMEs are defined as distinct and independently managed business entities operating in any sector of the economy, employing fewer than 250 full-time employees. This classification is guided by the *National Small Enterprise Act* 102 of 1996 and its 2019 amendment, which uses the number of employees and annual turnover as key size criteria (Republic of South Africa, 1996; DSBD, 2023). In summary, the target population was defined as follows:

- Element: Non-managerial employees working for South African SMMEs
- Sampling unit: SMMEs in South Africa
- Sample size: 300 employees
- Extent: South Africa
- Time: 2024–2025

1.6.1.3 Sampling frame

An international research company was employed to gather the necessary data for this research study. As a result of the *South African Protection of Personal Information* (POPI) *Act* 4 of 2013, the specific names and particulars of the companies listed in the international research company's database could not be disclosed, and as a result, a sampling frame for this study could not be established (Republic of South Africa, 2013). The international research company complies with relevant regulations and provides access to verified and globally diverse participant pools. These pools are screened in advance and carefully selected. In accordance with the scope of this study,

the international research company used the following inclusion criteria to select sample respondents:

- Aged 18 years or older
- Non-managerial employees of South African SMMEs

1.6.1.4 Sampling method

The study relied on non-probability convenience sampling. The international research company distributed the survey to non-managerial employees in the SMMEs listed on their database.

1.6.1.5 Sample size

The sample size of 300 non-managerial employees of SMMEs in South Africa is in line with previous studies conducted on SMMEs. Previous researchers, such as Bruwer *et al*. (2018:714), received 197 responses on internal control activities, managerial conduct, and sustainability in South African SMMEs, and Rambe and Ndofirepi (2017:7) obtained 108 responses to investigate the employee ethical conduct perspectives that influence organisational conduct.

1.6.1.6 Measurement instrument

A self-administered electronic questionnaire was used to gather data. A cover letter was included at the start of the self-administered electronic questionnaire. It requested participation by explaining the purpose of the study, providing information on completing the questionnaire, and obtaining informed consent. Following on the cover letter and informed consent, two screening questions were included on the self-administered electronic questionnaire to make sure the participant was indeed employed by an SMME with 250 employees or less and that the participant was not employed in a managerial position. The rest of the questionnaire as structured into two sections, namely Section A and B.

Section B requested the participants to answer demographic questions meant to capture the sample's descriptive information. Section C requested participants to provide their responses based on the scaled items of the three constructs, namely managerial ethical leadership, caring climate, and employee ethical behaviour. Questions were answered using a six-point Likert scale ranging from one (strongly disagree) to six (strongly agree). The managerial ethical leadership construct used by Brown *et al*. (2005:124-125) was adapted from a scale with four items that investigates the morality of managers based on employees' perceptions. The caring climate construct employed by Halbusi *et al*. (2021:611) was adapted as the scale on caring, which

consists of three items that determine the importance of a caring climate in the workplace. This construct is based on Brown and Cullen's (1988:112) original scale, which includes an additional two items that assess the caring climate as experienced by employees in the workplace. The questionnaire for this study tested three items to determine employees' perception of a caring climate in the workplace. The employee ethical behaviour construct, consisting of three items, was adapted from Halbusi *et al*. (2021:611).

1.6.1.7 Data collection

As discussed in Section 1.5.2.3, this study used an international research company for data collection. The self-administered questionnaire was created as an electronic questionnaire using Microsoft Forms, and the link to the questionnaire was shared with the international research company for distribution. The international research company distributed the link to the self-administered questionnaire with non-managerial employees of South African SMMEs, using the prescribed data collection protocols that align with the regulations of South Africa's POPI Act. The international research company compensated participants who successfully completed the questionnaire as part of the data collection process. This compensation can take various forms, such as a point or reward system, gift cards, monetary payments, or similar options, subject to the company's policies. Following the completion of 300 responses, the international research company provided the survey statistics report, which summarised the responses for subsequent analysis.

1.6.1.8 Data analysis

The Statistical Package for the Social Sciences (SPSS), Version 28.0 for Windows, and Analysis of Moment Structures (AMOS) were used to analyse the data collected from the survey. SPSS and AMOS were used to perform the following statistical analyses:

- Exploratory factor analysis
- Reliability and validity analysis
- Descriptive statistical analysis
- Correlation analysis
- Hypotheses testing
- Multicollinearity analysis

- Structural equation modelling
- Analysis of variance (ANOVA)

1.7 CONTRIBUTION OF THE STUDY

The primary contribution of this study is its contribution to the limited literature on managerial ethical leadership practices in South African SMMEs, an area that remains underexplored despite its critical importance for organisational success and international competitiveness. By examining how ethical leaders cultivate a caring climate, this study highlights the pivotal role of managerial leadership in promoting employee ethical behaviour, enhancing organisational performance, and safeguarding both domestic and global reputation. Managerial ethical leadership is particularly important in SMMEs, as leaders are responsible for embedding ethics principles into the organisational culture. This is done not only through documented policies but through consistent guidance and the reinforcement of normative standards. In the South African context, a caring climate established by ethical leaders fosters employee engagement, moral conduct, and adherence to ethics guidelines, which in turn supports financial sustainability, organisational reputation, societal trust, and the ability to compete responsibly on the global stage. The practical contribution of this study underscores the importance of structuring SMMEs with strong managerial leadership at the forefront, ensuring that business practices and organisational design prioritise ethics guidance, inclusivity, and the ethical development of employees.

Empirically, this study employs a quantitative approach to investigate the impact of managerial ethical leadership on the creation of a caring climate and employee ethical behaviour in South African SMMEs. Specifically, it aims to: (1) determine the effect of managerial ethical leadership on employee behaviour and a caring climate, (2) conduct a comparative analysis of managerial ethical leadership, caring climate, and ethical behaviour across SMMEs based on years of operation, and (3) examine differences in ethical behaviour among employees according to age. Collectively, these insights provide both scholarly and practical contributions, demonstrating how ethical managerial leadership can be leveraged to strengthen SMMEs' operational effectiveness, employee morale, organisational integrity, and global business reputation.

1.8 ETHICS CONSIDERATIONS

Ethics clearance was obtained from the North-West University Research Ethics Committee for Management Sciences. The following ethics number was assigned to the study: NWU 01961 23 A4 (Annexure F). Ethics clearance was requested on the basis that the study is considered low risk and poses no harm or health risks to the study participants. The study is considered low risk

as it involved distributing surveys to SMMEs in South Africa for data collection and demonstrated adherence to ethics compliance standards. In compliance with the requirements of the *Protection of Personal Information Act* 4 of 2013 (POPI Act), all anonymised data collected for this study will be securely stored in a password-protected OneDrive folder accessible only to the researcher and the study supervisors. It will be permanently destroyed after a period of five years. The POPI/PAIA Act was followed to protect personal information and instil confidence in participants during participation in the questionnaire. Additionally, the anonymity of the participants was ensured, and they had the option to opt out of the study at any time with no consequences. Therefore, providing a secure place of participation with no prejudice.

1.9 CHAPTER OUTLINE

Chapter 1: Introduction and background of the study

This chapter introduced the study with a discussion of the background, problem statement, and formulated objectives (both theoretical and empirical) related to ethical managerial leadership.

Chapter 2: Literature review

The second chapter defined the fundamental constructs at the foundation of this study, namely ethical managerial leadership, a caring climate and ethical employee behaviour. The influence of managerial ethical leadership in both international and South African contexts is discussed, and a caring climate in SMMEs is analysed. Employee ethical behaviour in the South African context is assessed. The chapter reviews the SLT and SET from a behavioural theory perspective, highlighting the importance of ethical practices in SMMEs.

Chapter 3: Research design and methodology

This chapter presents a detailed explication of the development of the questionnaire, covering essential elements such questionnaire design, question format, and the research methodology. The statistical analysis techniques are discussed, including reliability and validity analyses, descriptive analyses, significance tests, correlation analysis, and structural equation modelling.

Chapter 4: Results and findings

This chapter highlights the overall attainment of the empirical objective, presenting findings from the collected data. SPSS and AMOS are used to conduct statistical analysis, including correlation, reliability and validity analyses, descriptive analysis, and significance tests.

Chapter 5: Conclusion and recommendations

The last chapter presents the conclusions and offers recommendations on ethical managerial leadership, a caring climate, and employee ethical behaviour based on the results and findings.

1.10 SYNOPSIS

In summary, this chapter has provided a clear outline of the main focal point of this study, namely the impact of managerial ethical leadership on promoting a caring climate, with subsequent effects on employee ethical behaviour in South African SMMEs. The chapter illustrates how unethical leadership has led to widespread corporate scandals, globally as well as locally, creating a pressing need for ethical leadership practices that prioritise integrity, inclusivity, and societal well-being. It also established that managerial ethical leadership, through the promotion of a caring climate, provides the foundation on which workers engage ethically, remain committed, and support business sustainability in the long term. The background and problem statement highlight the problems faced by SMMEs in general, especially in South Africa where corruption, along with unethical conduct, continues to dominate the landscape. Based on this background, the objectives, hypotheses, and research questions for the study were developed to empirically explore the interlinkages between managerial ethical leadership, a caring climate, and employee ethical conduct. The methodology section outlined the design on which the study was based, the target population, sampling strategy, data collection, and analysis techniques, thus providing a clear outline of the empirical aspect of the study. Lastly, the study's contribution was highlighted, especially in terms of its relevance for enhancing leadership practice rather than intensifying ethical conduct across SMMEs.

With the methodological approach, objectives, and problem of the study established, the study now turns to the theoretical basis on which it is undertaken. The next chapter provides an in-depth literature review, offering a discursive analysis of the primary theories that explain the behavioural mechanisms of managerial ethical leadership and employee ethical behaviour, namely, SLT and SET. Furthermore, the chapter draws on both international and South African contexts for a study of the primary constructs: managerial ethical leadership, caring climate, and employee ethical behaviour. Through a critical analysis of available scholarship, the literature review provides background for the empirical study on how the constructs interrelate with one another, particularly emphasising the reasons why they are crucial for organisational prosperity, especially in the case of SMMEs.

CHAPTER 2 LITERATURE REVIEW

2.1 INTRODUCTION

This chapter provides an in-depth analysis of the two theoretical frameworks and the three constructs that underlie this study. The theoretical frameworks that inform this study are the SLT and SET, while the three constructs examined are managerial ethical leadership, a caring climate, and employee ethical behaviour. Together they form the cornerstone that helps to analyse the problem identified in the study, namely to understand the influence of managerial ethical leadership on caring climate and employees' ethical behaviour in South African SMMEs. This study further explores the challenges South African SMMEs encounter and considers the reasons for the high probability of SMMEs leaders and employees behaving unethically.

2.2 CONTEXTUALISING AND DEFINING SMMES

Internationally, SMMEs are recognised as a crucial drivers of economic growth, employment creation, and innovation. However, there is debate about the definition of such enterprises. It varies significantly based on the country, its legislation, the sector within which these businesses operate, and the perceived purpose of these businesses in the specific country (Ndjama & Westhuizen, 2024:610). Typically, governments and international organisations define SMMEs based on thresholds such as the number of employees, annual turnover, or asset base, as well as sector classification. For example, as one commentary notes, small and medium-sized enterprises (SMEs) are typically defined as businesses that fall between small and large businesses. The specific criteria used to categorise vary as each nation establishes its own thresholds and definitions (Nonzuzo & Ngalawa, 2025). Although there are variations in the definition of SMMEs, they are mostly determined by the size of the business. There are established boundary conditions for how these businesses function internationally, highlighting the importance of defining SMMEs for both research and policy (Child *et al*., 2022; Ndjama & Westhuizen, 2024:610). Thus, from an international perspective, SMMEs are unique business entities that could operate in any sector, could be managed by one or more owners, with a size threshold based on factors such as the number of employees, the turnover or profit and the monetary value of assets, which is set by policy that differentiates them from large enterprises (OECD, 2019:37; Nomafu & Van Vuuren, 2023).

In the South African context, the term SMMEs is widely used to refer to the micro to medium-sized business sector. The key legislation is the *National Small Enterprise Act* 102 of 1996 (hereafter called the Act), which states in Schedule 1 that a small enterprise is a separate and distinct business entity, including its branches or subsidiaries and cooperative enterprises,

managed by one or more owners, operating in any sector or sub-sector of the economy. It is classified as micro, very small, small or medium based on criteria such as the number of employees, annual turnover, and gross asset value, excluding fixed property (Republic of South Africa, 1996:xv). However, the Act was amended in 2019, which eliminated the asset-value proxy in favour of two size proxies – number of employees and annual turnover – simplifying the classification (Government of South Africa, Proclamation GN 399 of 2019). According to the amended Act, the definition of SMMEs, across all sectors, is based on the number of full-time employees for micro, small and medium enterprises (DSBD, 2023:8). This amendment defines micro or young enterprises as those with 0 to 10 employees, small or growing enterprises as those with 11 to 50 employees, and medium or established enterprises as those with 51 to 250 employees (DSBD, 2023:8).

In the South African context, the term MSME (micro, small, and medium enterprises) is increasingly being used, reflecting perhaps an alignment with the international community's terminology, as used by the United Nations (IIPC CL, 2015:4; Sungwa, 2025). In South Africa, a debate is ongoing regarding terminology and classification. Some studies continue to use SMME, while others adopt MSME, and the policy is evolving (Hofmeyr, 2024; Nonzuzo & Ngalawa, 2025). For example, the *National Small Enterprise Amendment Act* 21 of 2024 amends definitions and empowers new regulatory oversight (Hofmeyr, 2024; Ndlovu, 2025).

Keeping this in mind, the term SMMEs is used in this study for consistency with the majority of South African literature and policy usage. However, the changing terminology is acknowledged (towards MSMEs) and its implications for future studies is noted. Based on the discussion above, SMMEs are defined as follows: A separate and distinct business entity, including its branches or subsidiaries, which is managed by one owner or more and operates in any sector or sub-sector of the economy, and that meets the size-criteria for micro, small or medium enterprise as specified in the *National Small Enterprises Act* 102 of 1996 and its amendments, which is determined by the criteria of number of full-time employees.

2.2.1 The types of industries

As stated in the previous section, SMMEs can operate in any section or subsection of the economy and are thus not limited to certain types of industries. To provide clarification on the categorisation of industry types, this study will rely on the categorisation found in the *National Small Enterprises Amendment Act* 21 of 2024. These categories are also used by Statistics South Africa (2025) to register businesses and provide classifications for business activities.

Table 2.1 below provides a complete classification of SMMEs in South Africa, as defined by the *National Small Enterprises Amendment Act* 21 of 2024.

Table 2.1: SMMEs Definition Schedule from the National Small Business Amendment Act 21 of 2024

Sector or sub-sector in accordance with the Standard Industrial Classification	Size or class of enterprise	The total full-time equivalent of paid employees	Total annual turnover in Rands
Agriculture	Medium	51-250	<35.0 million
	Small	11-50	R<17.0 million
	Micro	0-10	R<7.0 million
Mining and quarrying	Medium	51-250	R<210.0 million
	Small	11-50	<50.0 million
	Micro	0-10	<15.0 million
Manufacturing	Medium	51-250	<170.0 million
	Small	11-50	<50.o million
	Micro	0-10	<10.0 million
Electricity, gas and water	Medium	51-250	<180.0 million
	Small	11-50	<60.0 million
	Micro	0-10	<10.0 million
Construction	Medium	51-250	<170.0 million
	Small	11-50	<75.0 million
	Micro	0-10	<10.0 million
Retail and motor trade and repair services	Medium	51-250	<80.0 million
	Small	11-50	<25.0 million
	Micro	0-10	<7.5 million
Wholesale trade, commercial Agents and allied services	Medium	51-250	<220 million
	Small	11-50	<80.0 million
	Micro	0-10	<20.0 million
Catering, accommodation and other trade	Medium	51-250	<40.0 million
	Small	11-50	<15.0 million
	Micro	0-10	<5.0 million
Transport, storage and communications	Medium	51-250	<140.0 million
	Small	11-50	<45.0 million

Sector or sub-sector in accordance with the Standard Industrial Classification	Size or class of enterprise	The total full-time equivalent of paid employees	Total annual turnover in Rands
	Micro	0-10	<7.5 million
Finance and business services	Medium	51-250	<85.0 million
	Small	11-50	<35.0 million
	Micro	0-10	<7.5 million
Community, social and personal services	Medium	51-250	<70.0 million
	Small	11-50	<22.0 million
	Micro	0-10	<5.0 million

In accordance with the Standard Industrial Classification (SIC) outlined in the National Small Business Act (NSBA, 2023) as detailed above, the re-categorisation of industry classifications in this study was undertaken to ensure alignment with nationally recognised standards for classifying economic activities in the South African SMME sector. This alignment enhances the comparability and consistency of the study's findings with official national statistics and policy frameworks that guide the analysis and support of SMMEs.

Representation across all major industrial sectors are recognised in the NSBA: agriculture, manufacturing, construction, trade (wholesale and retail), transport, finance and business services, catering and accommodation, community and social services, and mining. These categories of classification were considered essential to reflect the diversity and structural composition of the South African SMME landscape.

The process of re-categorisation was based on the detailed descriptions provided in the Standard Industrial Classification (Statistics South Africa, 2025). Specifically:

- Agriculture, construction, and manufacturing remained classified under their original NSBA categories.
- Mining was re-categorised as mining and quarrying to align with the NSBA terminology.
- Utilities were re-categorised under electricity, gas and water supply, reflecting the NSBA classification.
- Wholesale trade was aligned with the NSBA category wholesale trade, while retail trade was re-categorised as retail, motor trade and repair services.

- Transportation and information were grouped under transport, storage and communication services to align with the NSBA classification.

- Finance and real estate were both incorporated under the broader NSBA category of finance and business services.

- Professional, entertainment, and education industries were re-categorised under community, social and personal services, as defined by the NSBA.

- Accommodation was classified under catering, accommodation and other trade to align with the corresponding NSBA category.

This re-categorisation ensures that the industry groupings used in the questionnaire accurately reflect the structure and definitions provided in the NSBA (2023), ensuring consistency with national reporting standards, comparability across sectors, and relevance for policy and economic analysis. Moreover, it supports the validity of the study by ensuring that the sample distribution corresponds to the legally and statistically recognised categories used in assessing the performance and contribution of SMMEs in South Africa.

2.2.2 The role of leadership in South African SMMEs

Leadership is a crucial factor in SMMEs, which differ significantly from large organisations. In larger organisations, leadership tends to involve formal hierarchies, dispersed decision making, extensive policies and procedures, and distinct divisions of labour (Robinson & Jonker, 2024). By contrast, SMMEs are characterised by fewer employees, closer proximity between owner-managers and staff, more informal structures, and often a single or small leadership team that directly interacts with employees and other stakeholders (Madhovi *et al*., 2025). These differences have consequences for how leadership operates and for the ethical climate of the firm.

In SMMEs, the relational dimension of leadership, or the direct interpersonal relationship between the leader (often the owner-manager) and employees, plays a more significant role (Madhovi *et al*., 2025). The influence of leadership on ethical behaviour then becomes more immediate: the leader's personal integrity, value-based choices, transparency, trustworthiness and relational behaviours matter significantly, not just for formal policy compliance but also in the everyday work environment. In the South African SMME context, for example, research indicates that workplace spirituality and spiritual leadership in SMMEs have a positive influence on ethical behaviour among employees. However, while much leadership research centres on large firms, ethical practices in leadership are a key component of sustainable growth in SMMEs (Mhlongo, 2023).

Thus, employees in SMMEs may look more directly to the owner or manager for cues about ethical behaviour, expectations, culture and practices.

In a relational sense, SMME leaders must cultivate trust, open communication, fairness and accountability. Since small firms often rely on informal networks, personal relationships and reputation, the relational and ethical leadership dimensions are strategically important for firm survival and growth (Grobler & Koen, 2024:11). The literature in South Africa also indicates that ethical leadership in smaller firms is associated with higher trust, better ethical decision making and stronger internal cultures of doing “the right thing”. For instance, Hlatywyao and van der Walt (2024) examine how leaders in medium-sized enterprises embed personal values and systems to manage ethics. This contrasts with large organisations, where ethical leadership may still matter but is often embedded in formal ethics programmes, larger governance structures, and less direct personal relationships with each employee (Robinson & Jonker, 2024). Consequently, in large organisations, the leader’s relationships with each employee are less intimate (Grobler & Grobler, 2024:9). However, in SMMEs, the leader’s personal example, day-to-day conduct, and interpersonal engagement can have a far more immediate and visible effect.

Furthermore, younger employees seem to respond better to a caring climate and perceive themselves to align more closely with these ethics values in the workplace (Lasthuizen & Badar, 2023:11). In the South African SMME context, van der Walt (2023:23) argues that employees' perceptions of their ethical behaviour in relation a commitment to ethical norms when compares to older employees. In other words, ethical consideration and decision making in SMMEs are influenced by variables such as age and experience. Therefore, generational and age-related factors will influence employees’ perceptions of their ethical behaviour as it relates to a caring climate (Sibande & Manda, 2022:45).

2.2.3 The years of operation

Another important factor when assessing ethical leadership in South African SMMEs is the duration of the organisation's operation. Younger South African SMMEs tend to foster a more caring climate than older firms because the owners or managers of smaller and newer ventures personally influence the daily norms of the business (Grobler & Koen, 2024). Their close proximity to the daily operations of the business and to the employees provides visible leadership, community embeddedness, and relational ties that promote prosocial behaviour and community-oriented leadership (Mamabolo et al., 2025; Gwamanda & Mahembe, 2023). Empirical studies from South Africa indicate that ethical leadership at the SMME level predicts community engagement and employee-focused practices (Mamabolo et al., 2025; Gwamanda & Mahembe, 2023).

Owners or managers of smaller businesses have a greater sense of responsibility to the community and their employees, as they are more closely involved in the daily activities of both employees and the community (Maome & Zondo, 2022:8244). Research on South African SMMEs shows that ethical leadership practices are often informal, owner-driven, and rooted in local obligations rather than top-down compliance (Maome & Zondo, 2022:8244; Wentzel *et al*., 2024). Simultaneously, recent governance developments and evolving corporate social responsibility (CSR) guidance make even younger firms more receptive to adopting a caring climate because leaders of small firms can implement change swiftly without excessive bureaucracy (Bugwandin & Bayat, 2022; Grobler & Koen, 2024). Conversely, older and more established firms with longer operating histories and more deeply entrenched profit-maximising incentives often institutionalise performance metrics and shareholder-return logics that correlate with egoistic ethical climates (Maome & Zondo, 2022:8244). This is especially evident where formal governance emphasises financial performance over local relational responsibilities. This dynamic suggests that firm age interacts with leadership style, governance pressures, and resource constraints to influence whether an SMME leans toward a caring or egoistic climate (Gwamanda & Mahembe, 2023; Mamabolo et al., 2025).

Years of operation influence employee ethical behaviour because of the way firm age shapes organisational norms, leadership visibility, and the embeddedness of ethical practices. For instance, younger firms often have informal, owner-driven leadership that fosters a caring climate where everyday ethical behaviours are more visible and relationally grounded, whereas older firms tend to institutionalise formal metrics and shareholder-return logics that may encourage more egoistic ethical climates (Bugandin & Bayat, 2022:112; Neubaum, Mitchell & Schminke, 2004). More broadly, firm age moderates CSR engagement and ethical orientation, as mature firms accumulate resources and routines but may also become less agile ethically, while younger firms may leverage relational proximity but face resource constraints (Wentzel *et al*., 2024:33; Lee *et al*., 2018; Withisuphakorn & Jiraporn, 2015). The number of years an organisation has been operating therefore interacts with leadership style, governance pressures and resource configurations to influence whether employee ethical behaviour is supported by a caring versus an egoistic ethical climate.

Based on the discussion above, years of operation influences the ethics climate, employee ethical behaviour and the leadership approaches of owners or managers of SMMEs in the South African context. The study aimed to investigate whether there is a difference in employees' perceptions of ethical managerial leadership, employee ethical behaviour, and a caring climate based on the years of operation of a business. A question on the firm’s years of operation was included in the questionnaire. The question offered three categories, namely young (0–3 years), growing (4–9

years), and established (≥10 years) businesses. These categories are consistent with recent firm-level research and peer-reviewed practice (Parnell *et al.*, 2025) as well as standard age groupings used in large firm surveys (World Bank, 2010; International Monetary Fund, 2018). This will help determine the perceived influence of ethical managerial leadership on the caring climate and employees' ethical behaviour in South African SMMEs, as well as the potential influence that the years of operation of a business have on these perceptions.

2.3 THE THEORETICAL FRAMEWORK

2.3.1 Social learning theory

SLT is a behavioural theory, meaning that it focuses on human behaviour and the conditions that influence human behaviour (Bandura, 1971:6). As a behavioural theory, SLT is used in a variety of fields such as psychology, health and education (Badghish *et al.*, 2024:2). It was developed by Bandura (1977; 1986) and suggested that individuals learn new behaviour through direct experience and observation of others via role modelling. The theory's emphasis is on observational learning, reinforcement and the measure of observed consequences that serve as an informative and incentive function to encourage or discourage certain behaviours (Bandura, 1971:3). Observational learning is achieved through a series of cognitive processes such as attention, retention, reproduction and motivation (Bandura, 1977:23).

Le and Hancer (2021:514) outline four key observational processes in SLT that are essential to adopting an observed behaviour. The first is attention, which concerns the extent to which individuals notice and focus on the behaviour of a model. According to SLT, learning through observation cannot occur effectively without focused attention from an established role model (Bandura, 1977:24). The second process, namely retention, involves an individual's capacity to store and recall the behaviour they have observed. SLT emphasises that for a role model to influence others, the observed actions must be remembered and cognitively represented in a way that allows them to be retained even when the model is not present (Bandura, 1977:25). The third process is reproduction, which relates to the individual's ability to physically replicate the behaviour demonstrated by the model. This occurs when a person is capable of imitating the role model's actions and patterns of behaviour (Bandura, 1977:27). The final process, motivation, refers to the individual's desire or willingness to perform the behaviour. SLT maintains that not all observed behaviours are reproduced (Bandura, 1977:28). Furthermore, individuals are more likely to imitate behaviours that lead to positive outcomes and to avoid those that result in negative consequences (Bandura, 1977:28).

Reinforcement is a key component of SLT as it influences an individual's motivation during the learning process (Dooley, 2020:4; Bandura, 1977:36). It can be argued that the concepts of observational learning and reinforcement in SLT provide a clearer understanding of how social learning occurs. Gong *et al*. (2020:661) identify four main distinctions between observational learning and reinforcement processes. Firstly, the source of information differs. Observational learning is based on indirect learning through the observation of others' behaviour, where individuals use these models as guides for their own actions (Bandura, 1977:22, 36). In contrast, reinforcement learning is grounded in direct experience and practical engagement with one's environment. Secondly, the motivation for acquiring information varies. Observational learning allows individuals to assess and evaluate behaviours before engaging in them, enabling more informed decision making (Bandura, 1977:35). Reinforcement learning, on the other hand, focuses on the consequences of actions, encouraging the repetition of behaviours that yield positive outcomes while discouraging those that produce negative ones (Bandura, 1977:37; 1971:3). Thirdly, the mechanism through which behaviour is shaped differs between the two processes. Observational learning relies on the imitation of role models and draws on social influences such as family, peers, colleagues, and public figures (Bandura, 1977:6). Reinforcement learning instead emphasises behaviour that results from rational evaluations of costs and benefits, with the aim of maximising rewards (Ahmad *et al*., 2023:6). Lastly, the long-term effect of the two forms of learning also diverges. In observational learning, individuals initially lack direct experience and depend on social models to form their behaviour patterns (Bandura, 1977:6). Reinforcement learning, however, involves ongoing direct interaction with experiences, leading to the gradual development and strengthening of behaviour (Bandura, 1977:35). Learning occurs internally over time through repeated observation of models, while reinforcement operates as a regulatory mechanism that sustains learned behaviour (Bai *et al*., 2019:1874; Bandura, 1977:22).

An ethical role model remains vital for observational learning, which forms the foundation for the effective implementation of SLT. Brown *et al*. (2005:120) state that ethical leadership centres on SLT, highlighting the importance of ethical managerial leadership. Charoensap *et al*. (2019:10) argue that ethical leaders are a vital source of ethical learning. Al Halbusi *et al*. (2022:125) state that, based on SLT, the conduct of an ethical role model is continuously developing and builds moral attentiveness and confidence in dealing with ethical challenges. The above statement highlights the importance of role modelling because it enables learning and guides ethical conduct.

Chakonza (2019:19-20) argues from the perspective of psychological matching processes that modelling is a broad concept that encompasses observational learning, imitation, and

identification. Imitation refers to behaviour that is imitated by observing the behaviour of role models (Carrie & Li, 2022:22478). The imitation of ethical conduct is achieved when ethical leader behaviour is desirable and demonstrates care, concern, and fair treatment, while instructing ethical decision making and rewarding ethical conduct and punishing unethical conduct (Bandura, 1977:29; Charoensap *et al*., 2019:10). Therefore, one could argue that the SLT influences ethical leadership. Ethical leaders are responsible for creating and nurturing social learning that instils ethical conduct and encourages inclusivity. Banks (2021:22) argues that ethical leaders must evaluate the ethical signals they send, make ethical decisions, and clarify behavioural consequences to be effective role models.

From a social learning perspective, the above statement emphasises the importance of personal relationships and engagement with ethical leaders as ethical role models (Bai *et al*., 2019:1869). Ethical leaders must use their abilities and capabilities to foster reciprocal behaviour and adopt a collective approach that instils unity. SLT provides psychological functioning as a continuous reciprocal relationship between persons and establishes observed behaviours to be imitated (Bandura, 1977:194). Thus, SLT managers, as ethical leaders, set the foundation for effective engagement that fosters mutual actions and serves the best interests of both the business environment and its employees (Ribeiro *et al*., 2024:148).

2.3.2 Social exchange theory

SET is arguably one of the most influential theories in social sciences and is used in various fields (Ahmad *et al.,* 2023:1). Zolle and Muldoon (2019:48) argue that SET concentrates on the exchange of relations and conduct between people. SET originates from Homans (1958) as a psychological theory. Blau (1964) applied SET in the field of economics to analyse behaviour in the workplace (Ahmad *et al*., 2023:2). Wang *et al*. (2022:2) argue that the social exchange process encompasses both tangible (e.g., money) and intangible (e.g., social support) aspects. In support of this notion, Jahan and Kim (2021:87) argue that individuals in the workplace experience a social exchange relationship that includes intangible resources to maximise their benefits and minimise their costs. These intangible resources include information and knowledge, as well as friendship, concern, and respect. Tangible social exchange in employment is evident in every employment contract, whereby employees receive payment for the services they render (Quade *et al*., 2020: 1160).

Blau's (1964) interpretation of SET focuses on the social exchange relationship and the reciprocation process within those established relationships. The reciprocation process, which forms the foundation of SET, emphasises that when a person receives a rewarding service, it obligates them to reciprocate the benefits received (Blau, 1964:89). This means that the social

aspects that relate to the reciprocation process inform human decision making and behaviour (Cortex & Johnston, 2020:12). The behaviour in the SET is voluntary, not coercive, and does not function as a legal alternative (Blau, 1964:89-91). Ellis *et al*. (2023:2) argue that SET has three mechanisms. Firstly, a favourable social exchange relationship is established. Secondly, there is equality in reciprocation of the benefits received. Lastly, there are punitive sanctions for failure to reciprocate the benefits received. The punitive sanctions centres on the reciprocation norm, which suggests that individuals retaliate when faced with injustice by engaging in destructive conduct (Ali *et al*., 2022:2).

Reciprocation enhances understanding of SET as it outlines the principles that guide exchange processes. Gouldner (1960) identified three main rules of reciprocity. The first rule of reciprocity is that it is an interdependent exchange, where interactions involve mutual giving and receiving. This reflects the bidirectional nature of SET, in which continuous exchanges between individuals help maintain stable relationships (Cropanzano & Mitchell, 2005:876). The second regards reciprocity as a cultural belief, rooted in the idea that individuals generally receive outcomes that reflect their actions. When benefits are returned, balance is achieved and ongoing social exchange is promoted; failure to reciprocate disrupts this balance (Cropanzano & Mitchell, 2005:876). The third defines reciprocity as a norm and personal orientation, representing a moral or cultural expectation present across societies (Cropanzano & Mitchell, 2005:877; Gouldner, 1960:171). While individuals are not strictly obligated to reciprocate, this universal tendency underpins cooperative social behaviour. Overall, these principles demonstrate that SET provides valuable insight into expected interpersonal conduct and the formation of strong, mutually committed relationships.

The social exchange relationship that ensures mutual commitment is a slow-evolving cycle of reciprocation and benefit trade-offs starting with low-risk obligation, and gradually, the cycle grows (Blau, 1964:94). The growth of the social exchange cycle is due to the established trust, which is crucial while the obligation is unspecified (Blau, 1964:93-94). The positive reciprocation results in a positive attitude, organisational commitment and job satisfaction (Fan *et al*., 2021:539). Furthermore, SET emphasises that social exchange among individuals serves as a mechanism for social interaction, fostering the development of a network of social relations and a rudimentary group structure (Blau, 1964:92).

The above statement suggests that SET is essential because it emphasises reciprocation, trust, and information sharing, operating within established principles of exchange (McLeod *et al*., 2021:867; Cropanzano & Mitchell, 2005:8750). Social exchanges cultivate a sense of obligation, gratitude, and mutual trust (Blau, 1964:94). SET can therefore be seen as fostering an

environment that promotes commitment and belonging, enabling individuals to flourish both personally and professionally. It also highlights the ongoing communication processes that create and sustain social responsibilities (Thomas & Gupta, 2021:5).

Together, SLT and SET provide the theoretical foundation for this study, as they together explain how engagement, learning, and reciprocal social relationships reinforce observed and learned behaviours. These frameworks support the evaluation of managerial ethical leadership by illustrating how leaders who build social exchange relationships grounded in trust, inclusivity, fairness, and care (Charoensap *et al.*, 2019:10), encourage positive employee responses such as job satisfaction, productivity, and sustained commitment. This understanding underscores the importance of examining how managerial ethical leadership contributes to a caring climate and promotes ethical employee behaviour.

2.4 THEORETICAL CONSTRUCTS

2.4.1 Managerial Ethical Leadership

Ethical leadership in the business world has become a topic of growing concern, particularly with the increasing scandals and failures of leadership in ethical practices (Theriou *et al*., 2021:950; Lee *et al*., 2019: 822). The importance of ethical leaders and the need for effective measures to enhance employee ethical behaviour are crucial for improving ethical conduct within businesses. To enhance employee ethical behaviour, Halbusi *et al*. (2020:21) contend that managerial ethical leadership is instrumental because it inspires and exemplifies ethical behaviour, which enhances ethical conduct. According Bandura (1977: VII), managerial ethical leadership acts as a symbol which enables ethical conduct norms, enhances analysis of consciousness and the work environment, enhances direct communication irrespective of the parameters and influences positively foresightful action in individuals. Sze (2021:83) argues that the effectiveness of leadership is assessed by their ability to communicate the vision, goals, and strategies and establish a positive attitude that gains support and traction. Zaim *et al*. (2021:42) propose that managerial ethical leadership influences business success, especially in the work environment where ethical messages can get lost due to the bottom-line objective (Brown & Trevino, 2006:597). SLT can be used to better understand the influence of managerial ethical leadership (Brown *et al*., 2005:120).

Managerial ethical leadership is defined as the modelling of socially or ethically appropriate behaviour through one's own actions and interactions with others, and the encouragement of similar behaviour in followers through communication, reinforcement, and decision making. The demonstration of normativity reinforces the notion that managerial ethical leaders are role models

that instil ethical conduct, which is seen by individuals and serves as an ethical guide (Aloustani *et al*., 2020:2). Managerial ethical leaders must effectively communicate by demonstrating empathy, delegating power, enforcing moral norms, and guiding ethical decision making (Monga, 2023:3). They should create an ethical environment that reinforces acceptable conduct through consequence management (El-Adaway & Jenning, 2022:14). Finally, ethical decision making is observed and emulated (Fatoki, 2020:65). Brown and Trevino, (2005:599) support this outline by stating that ethical leaders embody both transformational and transactional leadership. The transformational element entails the ethical role modelling of a leader that centres in integrity, honesty and trustworthiness while the transactional element includes communication, rewards and consequences for ethical behaviour (Trevino *et al*., 2003:21).

Managerial ethical leaders rely on two pillars: the moral person and the moral manager (Trevino *et al.,* 2000:128). A moral person refers to one who is ethically principled, demonstrating ethical conduct through just decision making. Such a person is characterised by traits of honesty and integrity (Trevino *et al*., 2000:128-130). A moral manager is defined as the enforcer of ethical conduct through effective communication that captures attention and influences the ethical conduct of others by applying reinforcement measures to instil ethical conduct (Trevino *et al*., 2000:128). Therefore, managerial ethical leaders must be moral people who become the *moral umbrella* (Ahmad *et al*., 2018:1348). A moral umbrella refers to a managerial ethical leader who represents the different moral dimensions of ethical practices and who chooses to do right in business conduct and with all stakeholders (Ahmad *et al*., 2018:1348). Trevino *et al*. (2000:129) argue that an inconsistent approach to leadership, where a strong moral person leads a weak moral manager, yields ineffective results.

The effective balance between a moral person and a moral manager in managerial ethical leadership is a valuable asset. This is because the normative conduct of managerial ethical leadership through open communication builds a solid relationship, emphasising the principle of (SET) social exchange (Ahmed et al., 2018:583). Bai *et al*. (2019:1869) argue that managerial ethical leaders as moral managers who provide a conducive climate and establish a moral context that influences individual behaviour, constitutes an SLT team-level approach. Managerial ethical leaders have the power to influence and change the conduct of individuals with whom they interact through standards and guidelines (Halbusi *et al*., 2020:6). This is because a managerial ethical leader uses their role model position to instil ethical principles that guide individual behaviour, both personally and professionally. This is then reciprocated by employees (Schwepker, 2019:142; Fu *et al*., 2020:3).

Globally, normative conduct relies on effective managerial ethical leadership, which requires an understanding of cultural diversity and consideration (Jain & Pareek, 2019: 24). This means that a managerial ethical leader should possess advanced knowledge and a clear understanding of the globally diverse workplace. Therefore, in support, SLT argues that managerial ethical leadership must continuously embody self-regulatory processes, which will equip them to adapt to the global business world (Bandura, 1977: VII). Nwankwo *et al*. (2024:2041) argue that to understand the globally diverse workplace, managerial ethical leaders must have cultural intelligence (CQ) to ensure business success and balance the highly competitive pressures. Cultural intelligence equips leaders with essential skills, such as endurance, adaptability, and the ability to navigate cultural differences, thereby fostering positive outcomes in diverse workplaces (Nwankwo *et al*., 2024:2041). Cultural differences create a barrier to ethical conduct in the global workplace and the managerial ethical leader's interpersonal skills become essential to adapt to the diverse environment (Zander, 2020:38). Furthermore, the benefit of the interpersonal skills of a managerial ethical leader helps to empower and support staff, improve open communication, provide constructive feedback, and enhance collaboration (Zander, 2020:38).

A managerial ethical leader is essential in overcoming cultural differences and ensuring business success (Rao & Zaidi, 2020:1). This is because cultural differences prevent individuals from understanding each other (Iftikhar & Human, 2024:6). Misunderstandings in cross-cultural businesses is mainly due to language, culture, and the interpretation of words, symbols, gestures, communication, and lack of trust (Mogea, 2023:1; Kotze & Massyn, 2019:1). Moreover, inconsistency in business behaviour due to cultural differences is a common cause for unethical conduct because what is considered to be ethical conduct varies from one country to another (Chatterjee *et al*., 2021:987). To overcome these barriers, Mogea (2023:1) provides effective guidelines for proper integration to ensure ethical consideration. Firstly, the leader should increase knowledge and understanding of the culture of business stakeholders. Secondly, the managerial ethical leader should understand the diversity of individuals from other cultures in order to avoid misperception and miscommunication. Lastly, learning the local and regional language where the business operates. When a managerial ethical leader applies these guidelines, this means that managers will understand the ethical practices and avoid miscommunication and common misunderstandings. The implementation of Mogea's (2023:1) guidelines results in managerial ethical leaders developing cross-cultural leadership skills that ensure organisational performance, improve employee satisfaction, and facilitate better integration into the diverse market, making it applicable to all business types (Nwankwo *et a*l., 2024:2042).

Today's businesses are burdened with unethical leaders who prioritise self-enrichment (Hassen *et al*., 2022:511; Kaptein, 2019:1135). This is due to the highly competitive environment in businesses and in the business environment, which often results in shortcuts being taken to increase profits and performance (Metwally et al., 2019:1). According to Schwepker (2019:141), organisations are under pressure to meet targets and produce results. Schwepker (2019:141) argues that managerial ethical leaders play a crucial role in navigating these challenges in an ethical manner. Furthermore, unethical conduct by leaders is detrimental to customers' trust and causes harm to external stakeholders (Schwepker, 2019:142). The pressure to increase profits and productivity must not come at the expense of stakeholders, and managerial ethical leadership ensures a balance between ethical conduct and a single-minded, profit-driven mentality (Quade & McLarty, 2020:1158).

El-AdAway and Jennings (2022:1) state that managerial ethical leadership establishes normative behaviour and sets proper structures to address diverse ethical challenges while formulating changes and maintaining ethical values. SET concur that managerial ethical leadership create a dynamic with "exchange and power" which influences ethical directive (Blau, 1964). Yang *et al*. (2023:1-2) argue that ethical conduct is essential to maintain a competitive advantage and managerial ethical leadership ensures ethical standards of service. Therefore, managerial ethical leadership is inextricably linked to enhanced business performance, thereby maintaining a competitive advantage in providing quality services and products, ensuring returning customers, and establishing a solid consumer base (Chakonza, 2019:5). Consequently, managerial ethical leaders act as ethical role models who demonstrate ethical conduct and implement high standards for quality service and product delivery (Baig *et al*., 2020:247). Thus, managerial ethical leaders remain valuable in ensuring the ethical foundation of a business and are essential for developing and maintaining good relationships with consumers and other valuable stakeholders (Bhana & Suknunan, 2022:93).

Managerial ethical leadership requires the ability to provide clear directives, which applies to both small and large businesses. For example, Kuenzi *et al*. (2019:43) found that in 2016, Wells Fargo, a large financial service provider in the United States of America, created false accounts and forced customers to pay for unwanted insurance. The above example illustrates the abuse of power and the creation of an egotistical, profit-driven climate that compromised ethical decision making. Mogea (2023:23) suggests that communication is essential for consensus among individuals. Managerial ethical leaders determine the ethical character of the organisation and ensure business efficiency, performance, and organisational success (Dey *et al*., 2022:6; Sharma *et al*., 2019:712). Chakonza (2019:30) states that a managerial ethical leader can guarantee

organisational success and be competitive in the market. Managerial ethical leadership requires ethical decision-making skills to address potential inconsistencies in employee ethical behaviour.

Ethical decision-making skills are the cornerstone of effective managerial leadership, as ethical leaders enforce ethical business practices and strive to eliminate unethical ones. This is because managerial ethical leadership requires the formulation and implementation of organisational policies, procedures, and practices that ensure realistic goals and objectives (Khan *et al*., 2019:1). Hassen (2019:554) argues that unrealistic and misplaced organisational goals, as well as poorly designed reward systems, are the reasons for unethical employee behaviour in the public sector. Managerial ethical leadership ensures the efficient use of resources and aligns with motivating employees through attainable goals and rewards for desired behaviour (Hassen, 2019:554; Kiplimo, 2024:71).

Doan and Datta (2019:163) argue that managerial ethical leadership, when coupled with a caring leadership approach, are closely associated with characteristics that enable employees to navigate ethical dilemmas effectively. The above notion confirms Bai's (2019:1874) argument of SLT, which highlights the modelling abilities of a leader that influences the individual learning process. This is because caring leadership styles emphasise issues such as disclosure, integrity, and conflict of interest compared to more competitive leadership approaches. Managerial ethical leaders with a more caring leadership approach are viewed as better leaders due to their attention to relational and emotional dimensions (Gartzia & Baniandres, 2019:126). These dimensions help achieve economic gains compared to leaders who base their leadership style on competitiveness (Gartzia & Baniandres, 2019:126).

Sharma and Nair's (2021:1) findings suggest that managers with a caring leadership approach are perceived as transformational leaders, whereas those with a competitive leadership approach are viewed as transactional leaders. In this study, the emphasis is on caring leadership styles that embody ethical norms compared to competitive leadership approaches and managerial styles that portray attributes of control and are more task-oriented (Babiak & Bajcar, 2019:8801). Contrastingly, a caring leadership approach and management style employ a collaborative approach, which is advantageous for long-term business success (Babiak & Bajcar, 2019:8801). Sugyanto (2020:39) claims that leaders with a caring approach to leadership are more equipped to create a productive work environment because they apply a bottom-up approach, which focuses on a collective and inclusive development approach that ensures success. In contrast, a more competitive leadership approach enforces a top-down approach centred on profit maximisation. A competitive leadership approach is perceived as unethical because it is more likely to lead to bullying, tyrannising, and controlling behaviours (Babiak & Bajcar, 2006:8810-

8811). This highlights Coleman's (2019:235) argument that a caring leadership approach is more supportive and more conducive to overall ethical employee behaviour.

In the South African context, ethical business success, driven by managerial ethical leadership, remains instrumental in curbing unethical behaviour (Hendrikz & Engelbrecht, 2019:1; Adeleye *et al*., 2020:717). Managerial ethical leadership should aim to strengthen the weakened moral fibre or address the loss of moral and ethical principles in the South African business community (Zaim *et al*., 2021:42). South Africa has experienced high levels of unethical conduct, which has become normalised. These challenges include poor leadership, which contributes to unethical business practices and business failure (Mhlongo, 2021: IV). Unethical conduct in South Africa is also fuelled by the diversity of cultures, which requires effective cross-cultural leaders to be part of managerial staff who can expertly navigate ethical challenges and create a conducive environment for ethical employee behaviour (Kotze & Massyn, 2019:1). Mbigi (2007:294) argues that cultural bias can limit individual to their own cultural and organisational norms which could be a barrier to improved ethical leadership practices. Makka (2019:79-80) suggests that the cultural diversity of South Africa creates difficulties for effective managerial ethical leadership due to the dominant competitive leadership approaches, where leaders focus on contractual obligations, and this pressure results in increased unethical leadership both in the public and corporate sectors.

In an effort to change this narrative, Keikelame and Swartz (2019:1) argue for a decolonising research process grounded in trust, cultural competence, respect, and legitimate research practices that recognise and empower smaller communities. To achieve decolonising in South African businesses requires effective management of cultural diversity that embodies organisational inclusivity and the managerial ethical leadership that instils compromise, persuasion, discussion, accommodation, listening and freedom of speech(Mbigi, 2007:300; Thomas & Bendixen, 2000:507). The morality of managerial ethical leadership promotes integrity, empathy, fairness, transparency, and collective responsibility (Brown *et al*., 2005:120). These values can counter the growing culture of corruption in the South African business environment. Addressing corruption is crucial, as it gradually erodes the economy's potential for social mobility and economic development (Salahuddin *et al*., 2019:619).

Building on this, Notshulwana (2021:1050) argues that corruption not only undermines national development and social mobility but is often caused by poor legislative oversight, weak internal controls, ineffective managerial leadership, lack of accountability, and inadequate monitoring of business operations. Mlambo *et al.* (2019:40) further attribute ineffective leadership in Africa to greed, moral decay, self-enrichment, poverty, ethnic loyalties, and socio-economic challenges,

including unemployment. In this context, managerial ethical leadership becomes essential, as it promotes integrity and fairness in both the public and private sectors, especially in developing countries where equitable systems of resource distribution remain fragile (Bashir & Hassan, 2020:673). Such leadership can be fostered through effective reinforcement practices, including fair and transparent reward systems within South African businesses, which closely align with the principles and the ethical responsibilities of managerial ethical leadership.

Furthermore, South African SMMEs face numerous challenges that hinder the stability and success of their business activities. One of those challenges is corruption (Lingwati & Mamabolo, 2023:1). Fatoki (2020:63) contends that South African SMMEs frequently encounter ethics temptations driven by the pressures to survive. This requires managerial ethical leaders to maintain a balance between ethical conduct and profitability , ultimately establishing an ethical reputation. Ndlazi (2023:31) argues that dishonesty or unethical conduct is detrimental to a business's image, sustainability, and individual engagement, and affects the retention of ethical individuals in SMMEs. According to Bushe *et al*. (2019:1), SMMEs face a significant likelihood of failure. Specifically, approximately forty percent of new SMMEs fail within their first year of operation, sixty percent do not survive beyond their second year, and as many as ninety percent close within the first ten years of establishment. Botha *et al.* (2020:167) further argue that the failure of SMMEs is often linked to differences in cash flow management processes between small and medium-sized businesses.

Rao and Zaidi (2020:1) argue that individuals have become aware of the changes in business practices and expect better integration with the utilisation of resources that maximise benefits. However, SMMEs often do not function effectively due to transformations in the business. A managerial ethical leader has the responsibility to ensure sustainable development while navigating the social, economic and environmental risks, while also achieving a vision and commitment that ensures long-term sustainability (Almohtasb *et al*., 2021:4).

It can be argued that the inability of South African SMMEs to achieve long-term sustainability is largely due to ineffective managerial leadership. This often manifests in limited managerial knowledge, insufficient financial resources, inadequate institutional support, weak sustainable growth strategies, and overall poor performance (Mhlongo, 2021:VI). The absence of managerial ethical leadership further undermines the objectives of SMMEs, particularly their role in promoting employment opportunities and advancing social and political equality (Makwara, 2019:1). To ensure the successful attainment of these objectives, Bushe (2019:1) identifies three critical factors that must be addressed: leadership capacity, enterprise competitiveness, and a supportive business environment. Ethical managerial leadership, grounded in integrity, equips individuals to

enhance productivity, ensure stability, mentor others, and establish a robust operational framework that promotes sustainable business growth. Such leadership fosters an ethical and caring organisational climate that promotes responsible business conduct, enhances performance, and improves ethical business success focused on sustainability. In this way, ethical leaders play a corrective role by guiding employees toward actions that align with moral and professional standards (Dey *et al*., 2022:3).

2.4.2 Caring climate

A caring climate is an essential tool that businesses provide to individuals so that they can get an understanding of the work environment and the directive of acceptable behaviour (Kuenzi *et al*., 2022:46). SLT aligns with the above notion, as the theory value lies in the influential power of procedures that evoke psychological changes and a caring climate established by management normalises ethical conduct (Bandura, 1977:4). Cullen *et al*. (2003:129) propose that an ethical climate develops a perceptual lens through which workers understand and approach business activities and decision making in the working environment. Victor and Cullen (1988:101) introduced the concept of ethical climate, describing it as the shared perception among employees of the organisation's norms, practices, and procedures that reflect its ethical orientation.

Victor and Cullen's (1988:101) definition centres on a two-dimensional theoretical typology. Firstly, the ethics criteria consist of three dimensions used for organisational decision making, which are: egoism (self-interest), benevolence (caring), and deontology (principled). An egoistic ethics climate is primarily guided by self-interest, whereas a benevolent or caring climate focuses on the welfare of others and encourages ethical decision making that supports collective well-being. In contrast, a principled climate is characterised by adherence to established rules, laws, and moral standards as the basis for ethical reasoning (Victor & Cullen, 1988:105). According to Gadi *et al.* (2022:2), these three overarching types of ethics climates can be further categorised into five specific dimensions—instrumental, efficiency, caring, professional, and independence—which serve as indicators across different organisational contexts. However, the organisational climate is a multidimensional construct rather than a single-layered phenomenon (Qabool *et al*., 2021:5). Therefore, the second dimension, according to Victor and Cullen (1988:106), describes three levels of ethical analysis that influence decision making: the individual, the local, and the cosmopolitan loci. The individual locus refers to ethical reasoning that originates from personal values and moral standards external to the organisation. The local locus represents ethical reasoning that emerges within organisational groups or teams. The cosmopolitan locus, on the

other hand, draws from external institutional frameworks such as professional associations, regulatory bodies, or legal systems that shape ethical conduct within the organisation.

The ethics climate within a business largely determines how ethics conflicts arise and how they are resolved, as well as the nature of these resolutions (Victor & Cullen, 1988:104). This study specifically focuses on the benevolent, or caring, climate, which emphasises empathy, inclusivity, and collective well-being as central principles of ethical reasoning. Research by Dziurka *et al*. (2021:168) indicates that such a caring climate promotes a shared vision of mutual respect and concern for others. A caring climate establishes the reciprocation between the employee and the manager while encouraging mutual trust, gratitude and personal accountability, which aligns with SET (Blau, 1964:94). Furthermore, Nurtati *et al*. (2020:76) highlight that a caring climate is closely linked to individuals' psychological perceptions of their work environment, shaping both attitudes and behaviour. Consequently, organisations have an ethical responsibility, driven by managerial ethical leadership, to nurture a caring climate that fosters a sense of belonging, self-worth, and community, thereby enhancing both individual and organisational success (Nair & Sivakumar, 2018:3).

In the global context, a common vision of a caring climate is challenging, as diversity and cross-cultural management are complex issues. This challenge stems from the management of understanding ethnic background (Thomas & Bendixen, 2000:509). Cross-cultural management involves adapting to and managing variations in cultural practices when operating in an international or foreign context (Bird & Mendenhall, 2016:115). This entails that acceptance, unbiased mentality, and inclusivity ensure global business success. Establishing a caring, diverse inclusive climate that creates a shared feeling of work must embody honesty, reliability, provide care and long-term orientation (Wen & Oljaca, 2020:17). Diversity includes employees' collective understanding of human resource practices that acknowledge, respect, and value individual differences in the workplace (Choi, 2013:85). It is also important to recognise the differences among individuals that may influence their acceptance, performance, satisfaction, and advancement in an organisation (Hays-Thomas, 2022:12). Inclusion can be understood as the extent to which individuals perceive themselves as valued members of a work group, where their needs for belonging and individuality are acknowledged and respected (Shore *et al.,* 2011:1). The management of inclusion involves implementing strategies that facilitate the effective participation and engagement of a diverse workforce (Wen & Oljaca, 2020:18). These concepts collectively highlight the significance of fostering a caring climate that values diversity and promotes acceptance of individual differences (Rishi *et al.,* 2023:140). Furthermore, sustaining a caring climate reflects an organisation's moral commitment to ethical behavioural principles and mutual respect (Su & Hahn, 2022:3).

El-Adaway and Jenning (2022:4) emphasise that ethics infrastructure, defined as established ethics norms and guidelines, provides the foundation for a caring organisational climate. Such a climate offers guidance for addressing ethics dilemmas and reflecting on acceptable conduct across different professional sectors. Daskin and Pala (2023:15) note that a strong ethics infrastructure supports the consistent implementation of ethics values and rules, helping organisations distinguish right from wrong. In this context, a caring climate functions as both a guide for behaviour and a mechanism for resolving conflicts, fostering a harmonious work environment and promoting healthy relationships (Abduallah *et al*., 2020:53). By facilitating moral judgment, a caring climate contributes to ethical decision making and distinguishes organisations that succeed responsibly.

For instance, in the tourism and hospitality industry, a caring climate is linked to higher client satisfaction (Decoster *et al*., 2019:15). Conversely, Shah and Rahim (2019:53) note that prioritising profit maximisation can undermine a caring climate, as ethical practices may be perceived as obstacles to economic performance. The medical sector similarly faces ethics dilemmas and relies on a caring climate to benefit both institutions and patients (Noh & Kim, 2024:1). A caring climate ensures that ethical decisions are made consistently by using established practices and procedures (Al Halbusi *et al*., 2020:6) and is shaped by the ethics culture of the organisation as well as individual characteristics, reducing the likelihood of unethical behaviour (Auzoult & Mazilescu, 2021:1; Muthuswamy, 2023:12). While each industry encounters unique ethics challenges, fostering a caring climate remains essential for promoting long-term success, ethics excellence, and a sustainable competitive advantage.

A caring climate is suitable for all business sizes because it is a valuable tool that addresses ethics issues such as fair compensation, morality, and turnover intentions (Fein *et al*., 2023:115). Mustamil and Najam (2020:1) suggest that a caring climate entails fairness in the organisation aimed at guiding the organisation's actions and behaviour. The business setting establishes the pillar of ethics standards in a caring climate that instils engagement, transparency, accountability and responsibility. Ganji *et al*. (2021:31) argue that any business's effectiveness and efficiency depend on a caring climate and community support. Qabool *et al*. (2021:1) argue that there should be more managers who instil ethical conduct through guidelines and are open to engaging in an approach that enhances inclusion and excellence in ethical business practices.

Therefore, a caring climate is the best climate because it can curb unethical conduct in developing countries with a high number of ethics dilemmas, combat corruption, improve government accountability, and restore trust (Khokhar *et al*., 2020:484). A caring climate provides a fair, transparent and trustworthy setting for continuous social exchange in the workplace. It ensures

the successful execution of daily processes, procedures, and policies because ethical decision making is normalised (Jha & Singh, 2019:389). The above narrative highlights three main factors of a caring climate: a good corporate culture, a trust-based organisational culture, and individual relationship management. Furthermore, these three factors are due to several interactions, including self-interest, company profit, efficiency, and group interest (Noermijati *et al*., 2021:230-231). The business is responsible for creating a caring climate that centres on fairness by implementing high ethics standards and fostering ethical relationships, thereby promoting ethical employee behaviour (Muthuswamy, 2023:21).

Gannouni (2019:45) argues that a caring approach to managerial leadership is not passive but actively establishes a relational or communal work environment. The rise in implementation of a caring leadership approach in business has created a constructive style of leadership that promotes the development of a caring climate and encourages ethical employee behaviour (Babiak & Bajcar, 2019:8805). Larssona and Alvinius (2020:746) suggest that a caring approach to leadership employs positive perceptions of leadership in the workplace. As discussed in the previous section, a caring approach to leadership is considered a form of transformational leadership. Furthermore, transformational leadership is characterised by leaders who inspire employees to act beyond their personal interest and to focus on collective goals, which motivates employees to achieve more than initially expected (Leon *et al*., 2020:4). This aligns with the caring climate, which focuses on providing a consistent and conducive work environment (Offermann & Foley, 2020:11). Thus, a caring climate emphasises a caring leadership approach, which produces positive results that ensure self-acceptance, development, and enhanced confidence, while an egoistic climate focuses on self-centeredness and exclusion.

In the South African context, self-serving leaders who create an egoistic climate are dominant as cases involving poor ethics are continuously in the media, showing the lack of regard for ethics (Daskin & Pala, 2023:16). Mantzaris and Pillay (2019:40) suggest that corruption, as “unethical conduct”, remains a concern and has permeated all society levels and sectors. The foundational causes are the loss of proper ethics standards, lack of honest and cohesive leadership, organisational gaps and weaknesses, individual or group greed, political or organisational opportunities, and immunity for offenders. Furthermore, corruption perpetuates inequality and creates a filtered ground for an egoistic climate (Mantzaris & Pillay, 2019:40). Musavengane and Leonard (2019:40) argue that corruption rooted in inequality originates from the apartheid era, which created exclusion and perpetuated racial differences and social status. Unethical conduct in South African businesses is nurtured by self-centeredness and exclusion that benefits the minority and damages the inclusion of ethical business (Decoster *et al*., 2019:6; Mlambo *et al*., 2023:36). A continuous unethical business culture results from individuals who avoid personal

responsibility for the consequences of their unethical actions and transfer such responsibility to others (Majstorovic & Petrovic, 2022:438). A caring climate remains instrumental in projecting ethical conduct, inclusivity and diminishing unethical practices. This is because a caring climate becomes the evaluator of moral judgment, strives towards equality and community, supports and addresses the emotional needs of individuals, and encourages interdepartmental integration that shares common goals and objectives (Mishra & Tikoria, 2021:446). A caring climate could limit unethical conduct in South African businesses and break the self-centred exclusion patterns.

Fakoti (2020:62) argues that SMMEs are not exceptions to unethical conduct and that an egoistic climate is a reality. An egoistic climate instils the idea that individuals do not have to comply with ethical grounds, but rather do whatever it takes to be competitive and make business success a reality. The increased competition in SMMEs, arduous regulations, harsh local economic conditions, high labour costs, lack of finance, high municipal costs, and poor services are challenges that SMMEs face (2015 SMME Growth Index). These challenges can result in pressure for business survival and perpetuate an egoistic climate. This behaviour results in a trade-off between rewards and costs, a strategic framework for individualised game or group interaction with society and the environment (Zhang & Fei, 2022:3). Thus, the fear of failure shapes egoistic climate in SMMEs as SMMEs come under performance pressure. They then start to neglect ethical conduct that will ensure continuity, as ethical business practices are presumed to be expensive. They revert to unethical means that are convenient (Mashilo, 2022:31).

Continuous operational difficulties, lack of financial support, inadequate information about government funds, and lack of entrepreneurial skills increase unethical practices that become normalised and that hinder business success (Mashilo, 2022:V-3). Botha's (2012:1) findings suggest that SMMEs operate in a hub of unethical conduct, surrounded by corruption, bribery, coercion, deception, theft, and unfair discrimination. SMMEs are essential in any country, but the consequences of poor oversight over business practices and the failure of ethical managerial leadership cultivate a culture of self-serving business trade-offs. Ndlazi (2023:17) argues that the success and survival of SMMEs depend on ethical management, which involves the development of a caring climate. Still, the failure to establish strong stakeholder relationships and disregard for legal, ethical and socio-environmental obligations can be detrimental. The key principles of ethical management are honesty, integrity, fairness and trustworthiness (Ndlazi, 2023:17). These key principles provide the foundation of a caring climate. Managerial ethical leadership in a caring climate remains fundamental as a guide to ethical conduct in a business (Dziurka *et al*., 2021:168). A caring climate influences and enhances ethical behaviour among employees, as they perceive a caring climate as essential for a conducive work environment. A caring climate

grows from managerial ethical leadership and harmony in organisational procedures and progress (Baig *et al*., 2021:248).

2.4.3 Employee ethical behaviour

Employee ethical behaviour is fundamental because organisations rely on employees to enforce organisational goals, objectives, procedures and to deal effectively with ethical dilemmas. When the business provides ethical support for employees to reach their objectives and goals this encourages employee ethical behaviour through commitment and self-development (Fu *et al*., 2020:5). A caring climate becomes the pillar for employee ethical behaviour, because employees do not work for just earning salaries but seek meaning, connection, fulfilment and a caring climate (Nair & Sivakumar, 2022:1). Coffie and Coleman (2018:84) define employee ethical behaviour as employees' reactions to situations encountered in the workplace. Employee ethical behaviour refers to employees' actions on an individual level, which either contribute to or detract from corporate social, ethical and environmental performance (Halbusi *et al*., 2021:304). Sookdawoor and Glober (2022:6) define ethical employee behaviour as actions that are generally regarded as morally appropriate and are expected to be upheld within an organisation. It can be argued that businesses and employees share an interdependent relationship, as both economic and ethical behaviour contribute to common corporate objectives, with ethical conduct by employees supporting the achievement of economic rewards (Koh & Boo, 2004:677).

Continuous business success relies on maintaining employees' job satisfaction to enhance productivity and employee efficiency (Chebon *et al*., 2019:12). Business needs to establish employee ethical behaviour by providing guidance, and clearly communicating values and expectations for performance (Al Halbusi *et al*., 2019a:30). To capture the influence of managerial ethical leadership that will instil structure and provide directive, create a caring climate and enhance employee ethical behaviour in businesses, Al Halbusi *et al*.'s (2021:610) model developed the proposed research model for this study.

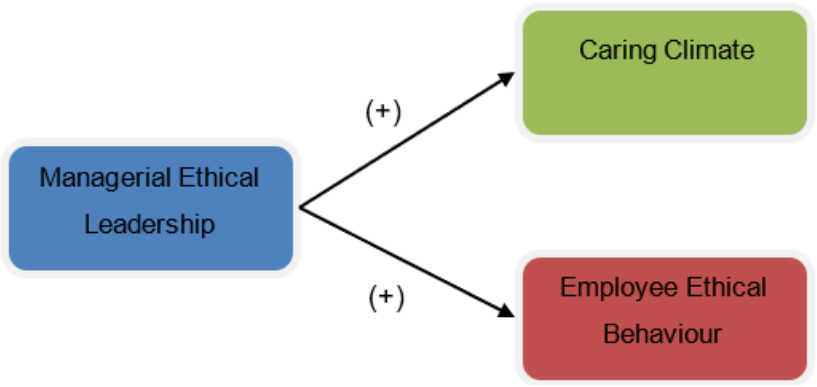


Figure 2.-1: Proposed research model

This model provides the essential instruments that highlight the leadership power that shapes and inspires employees' ethical behaviour. Sookdawoor and Glober (2022:2) suggest that the organisations inspire employees' commitment and perform beyond their expected duties. This means that when employees are provided with a caring climate, they become assets who provide a long-term competitive edge, and the business needs to retain employees who strive towards ethical excellence (Wen & Olijaca, 2020:16). For ethical excellence to be continuous, job satisfaction becomes the indicator of good leadership, or managerial ethical leadership, and a caring climate. MEL (independent) and CC and EEB (dependent), a causation assumption cannot be the order of the exclusion of this study's statistical findings. This is because (Al Halbusi *et al*., 2021:616) findings highlight the existence of this relationship and affirm this study's findings by applying hypotheses and correlation to attain validation. While Victor and Cullen (1988:102) highlights that caring climate (ethical climate) that "(1) organizations and subgroups within organizations develop different institutionalized normative systems; (2) although not completely homogeneous, these normative systems are known to organizational members sufficiently well to be perceived as a type of work climate; and (3) perceptions of ethical work climate differ from affective evaluations of ethical work climate". Therefore, confirming the ethical principle that managerial ethical leadership must create an inclusive climate that enhances employee ethical conduct.

Fu *et al*. (2020:4) argue that a manager becomes instrumental because employees identify with the manager and establish a climate centred on care, fairness, and a trust relationship through effective communication and social exchange. Employee ethical behaviour is largely influenced by leaders who model ethical conduct, as they provide guidance that helps employees implement best practices and cultivate a work environment grounded in fairness, honesty, and professionalism (Alizadeh *et al*., 2021:682). A positive and well-established organisational climate not only enhances performance but also reduces absenteeism and turnover, prevents corruption, and increases ethical awareness among employees (Al-Fayez *et al.,* 2024:3). Moreover, Coffie and Coleman (2018:84) highlight that employee ethical behaviour is shaped by an inclusive workplace culture, which supports employee development and is particularly important in a global context where diversity plays a critical role.

In a global context where cultural diversity is central and conflicts in ethical standards are inevitable, employees depend on organisations to integrate diverse ethical practices that promote consensus on appropriate conduct (Jain & Pareek, 2019:26). Managerial ethical leadership plays a crucial role in this process, providing individualised attention that encourages self-development

through mentorship and guides ethical behaviour within a culturally diverse workplace (Chen *et al.*, 2019:12). Employees often respond to such positive reinforcement by exceeding performance expectations. The transactional aspect of employment further influences how cultural differences are navigated, as reciprocal ethical behaviour becomes a key component of organisational interactions (Brown *et al.,* 2005:1).

Establishing an ethical and inclusive organisational culture provides a shared framework of norms, behaviours, and expectations that guide members in upholding common ethical values. Such a culture shapes attitudes and thought processes in ways that positively influence performance, organisational stability, and overall development (Lee, 2020:51). Implementing a normative ethical culture encourages collaboration and supports a work environment that benefits all employees. This approach fosters cross-cultural competencies, enabling the organisation to effectively manage diverse work situations (Johnson *et al*., 2016:22). Failure to manage cultural diversity adequately can lead to interpersonal conflicts that hinder team innovation and overall performance (Ratasuk & Charoensukmongkol, 2020:4).

Organisations should therefore create inclusive workplace designs that provide support and a welcoming environment, enhancing ethical behaviour among employees (Tagliaro *et al*., 2023:133). When inclusivity is successfully achieved, employees feel comfortable expressing themselves and resolving conflicts constructively, leading to a more harmonious and effective work environment (Gephardt *et al*., 2016:22). Employee ethical behaviour has gained great significance in all industries because of the high unethical conduct evident in today's workplace (Fehr *et al*., 2019: 73). Ikemefune and Akhigbe (2020:1) argue that employees are vital assets that are rational and guarantee effectiveness in business success. This is because employees make decisions daily that have ethical consequences, and businesses seek employees who strive for ethical decision making (De Cremer & Moore, 2020:370). Chebon *et al*. (2019:13) contend that the decision-making process is critical because it identifies potential problems, analyses possible solutions, and is a primary deterrent to business success. Business success is the objective of any business, and Ejikeme and Ebubechukwu (2020:37) argue that businesses must strive for ethical practices. This means that employees will be responsible for adhering to ethical business practices, but they need the support of the business.

Lee (2019:47) argues that in the healthcare sector, hospitals are responsible for motivating employees' ethical conduct through a work climate that results in better quality performance, care, collaboration, and enhanced competitiveness. Noermijati *et al*. (2021:238) note that in the banking industry, ethical behaviour is enhanced through the support that employees receive, which results in quality, quantity and timeless performance. Nurtati *et al*. (2020:76) contend that the lack of

consideration in ethical practices and decision making will negatively influence employees' ethical conduct. These negative influences include low motivation, no opportunity for self-development, and not satisfying employee responsibility (Nurtati *et al*., 2020:76). For example, El-adaway and Jennings (2022:32) claim that the engineering industry is exposed to many unethical practices that are not reported, scrutinised or discussed because their existing code does not consider ethical practices and principles. Furthermore, employees' accountability centres are in fear of exclusion by employees directly affected in these unethical cases. When businesses normalise unethical behaviour, ethical practices become ignored. Profit maximisation becomes central, which is often driven by greed and focuses on personal, material, and financial interests (Mantzaris & Pillay, 2019:41).

El-Adaway and Jennings (2019:7) argue that the type of industry case analysis suggests that when businesses fail to address unethical conduct, such as violating codes, standards, and values, this escalates events. The escalation of events (unethical conduct) is more challenging in large companies, where ethical practices are ignored because stakeholders have unrealistic expectations. This highlights that the employee's behaviour depends on the ethical nature in which they were employed (Brenkert, 2019:921). When an ethical culture is established in the business, employees are likely to stay because they believe it is the "moral thing to do" (Fanggidae *et al*., 2019:263). This normative commitment can be a challenge in large businesses compared to small businesses. Mashele (2023:3) argues that employees from large businesses have different insights regarding rewards compared to those from small businesses, and this influences their normative commitment.

Furthermore, in small businesses, employees experience a more direct interaction that enhances normative commitment, such as their input in the running of the business, recognition, mentorship opportunities, and career progression, compared to longer-term financial and security-related benefits that larger businesses offer (Mashele, 2023:4). One could argue that the inclusivity in small businesses can enhance employee ethical behaviour, which can be more of a challenge in large businesses because of the top to bottom approach to the management of ethics when employees have an engaging climate and feel that their input matters, employees are always more effective in their work and freely express themselves in both negative and positive situations faced in the workplace (Amah & Oyetuunde, 2020:898). Ouakouak *et al*. (2020:260) state that a positive work environment that embodies inclusivity, enhances employee autonomy that empowers employees, and instils competence and understanding will propel ethical employee ethical behaviour in business practices and ethical decision making. Therefore, the business benefits from employees' ethical behaviour when they are part of initiating, formulating and implementing the decision-making process (Mwakajila *et al*., 2019:50).

Employee ethical behaviour ensures business success, and Young (2020:3) claims that many businesses have realised the importance of collaborative behaviour over competitive behaviour. Moreover, a caring leadership approach has "all the right attributes" to enhance employee ethical behaviour. This includes attributes such as empathy, change catalysts, and inspirational leadership. The strength of caring leadership styles lies in their emphasis on care and consideration, while equipping employees with a sense of self-efficacy. Occupational self-efficacy is the belief in one's own ability and competence to perform tasks relevant to their occupation, including confidence in achieving successful outcomes and evaluating the results of their actions (Chaudhary *et al*., 2012:1; Lent & Brown, 2013:1; Kashmir *et al*., 2020:59).

In the South African context, ethical business practices are not considered since unethical conduct by employees has been normalised (Van Wyk & Weiss, 2019:12). The high unethical behaviour within business has become a point of concern that continuously analysed to determine the effect on economic development which the hope of developing several strategies that ensure long-term sustainability (Sharma & Nair, 2021:1). To curb unethical conduct in South African businesses, the KING reports were established to enhance employee ethical behaviour and promote ethical business success. The King VI report provided six principles to enhance ethical governance within business. These principles are integrity, competence, responsibility, accountability, fairness and transparency (King VI, 2016).

However, unethical conduct remains pervasive in South Africa, as employees continue to behave unethically despite being aware of the consequences of their actions (Darwish & Abdeldayem, 2019:460). This creates a mindset among employees that ethical practices are of no value. South African businesses employed Eurocentric, autocratic, and hierarchical systems that created conflict in ethical business management (Shrivastava *et al*., 2014:49). This resulted in a decline in employee ethical behaviour in South Africa. The tension between the collective mindset of employees and the competitive orientation of business owners in South Africa has deep historical roots, exacerbated by the Apartheid era, which entrenched economic inequality and contributed to the country being recognised as one of the most unequal societies in the world (Mlambo *et al*., 2023:40). Historically, South African business leaders often abandoned the ethical principles of a caring climate their business practices, favouring self-interest and greed over collective well-being, which fostered a culture of individualism rather than communal responsibility (Mantzaris & Pillay, 2019:40; Grigoropoulos, 2019:170). This legacy is reflected in contemporary unethical practices, such as auditors and accountants misrepresenting reports and failing to uphold professional ethics, scepticism, and moral judgment. While businesses are often portrayed as victims of unethical conduct, they frequently fail to acknowledge their own role in normalising such behaviour, demonstrating that leadership plays a decisive role in shaping organisational conduct.

Employees tend to follow and internalise the behaviour modelled by leaders, whether ethical or unethical, reinforcing the established norms.

SMMEs face considerable pressure to compromise their ethical standards in pursuit of business success, particularly when navigating socioeconomic and political challenges (Van Wyk & Venter, 2022:83). This underscores the need for employees to exhibit ethical behaviour and resist temptation, thereby contributing to sustainable business success. The personal values, ethical conduct, decision-making style, and moral judgement of business leaders are closely intertwined with SMME operations and influence organisational culture (Bela *et al*., 2022:97). Managerial ethical leadership is crucial because it guides employees in implementing business objectives ethically, encourages innovative solutions to financial challenges, and supports the overall survival and growth of the enterprise (Ncube & Zondo, 2022:8223).

Employee creativity further enhances organisational success by introducing new ideas, processes, and approaches (Nasir, 2022:5). Creativity involves approaching problems from different perspectives, recognising hidden patterns, and connecting previously unrelated trends to develop effective solutions (Yoshida *et al*., 2014:1). Managers and employees must analyse, understand, and adapt to the business environment to solve problems effectively (Hadebe, 2022:32). However, many South African SMMEs lack effective strategies to detect and address unethical conduct and often face performance pressures that make them vulnerable to financial and operational risks, such as credit scams (Mashilo, 2022:32). Failing to prioritise ethical considerations can exacerbate unethical behaviour and lead to financial crises and employee stress, highlighting the critical role of ethical management and employee ethical conduct in business sustainability (Darwish & Abdeldayem, 2019:488-489).

Ethical management strengthens organisational commitment, promotes cooperation, and fosters team cohesion while instilling moral values such as integrity, fairness, and mutual respect (Ndlazi, 2023:8). This approach empowers both leaders and employees to learn from mistakes, develop their skills, and engage proactively in improving organisational outcomes (Bai *et al*., 2019:1869). Organisational commitment, understood as a psychological attachment that motivates employees to align with organisational goals and values, is central to this process (Monga *et al*., 2023:2). Conversely, when employees perceive unfair treatment or favouritism, they may remain physically present but mentally disengaged, leading to reduced productivity, delayed tasks, and wasted resources (Ali *et al*., 2022:3). Ultimately, employee ethical behaviour can transform organisational outcomes by steering the direction of the business. However, it requires ethical leadership to provide transformational guidance, enabling employees to become effective problem-solvers,

move beyond traditional approaches, and foster creativity, engagement, and ethical decision making throughout the organisation (Chen *et al*., 2019:13-14).

2.5 SYNOPSIS

In summation, employee ethical behaviour is instrumental in enhancing successful business practices. This is because when a caring climate is established, job satisfaction increases, which in turn results in employee retention, productivity, and efficient employees (Chen *et al*., 2019:12). The challenges lie in implementing a caring climate in business and in having managerial ethical leaders embody ethical principles and practices as norms. The responsibility lies with business management, which needs to have ethical conduct normalised, as this influences employee ethical conduct. As Baig (2021:250) states, when employees receive proper mentorship through managerial ethical leadership, the business will succeed. For inclusivity in the work environment, a “caring climate” is essential, especially in a global business. To overcome ethical conflicts, ethical leaders must foster a caring climate.

Managerial ethical leaders serve as role models in an organisation by fostering and creating a caring climate that influences employee ethical conduct (Aloustani *et al*., 2020:1). The lens through which managerial ethical leaders operate rests on their ability to make successful ethical decisions, which constitutes an activity filled with integrity. The strength of managerial ethical leaders lies in the effective use of the SLT and SET, which empower leaders to foster effective and efficient employee work relationships. Dey *et al*. (2022:3) argue that via SLT, employees learn behaviour by observation from their leader as a role model in the workplace. Managerial ethical leadership is strongly related to good governance that establishes a strong caring climate which focuses on creating and maintaining positive employee attitudes and behaviour (Chakonza, 2019:5). The key lies in a work environment that creates a sense of acceptance, value and trust in the employee's ability to execute their work ethically with the support of a managerial ethical leader. Fair business practice in decision making becomes the cornerstone that navigates direction. Charoensap *et al*. (2019:9) assert that ethical decision making is one of the most crucial functions of a leader, significantly influencing the business climate. Dziurka *et al*. (2021:168) emphasise that a caring climate is the principle and guideline for appropriate conduct within business. When employees perceive a caring and ethical climate, they reciprocate with ethical behaviour, resulting in business success.

The growing emphasis on managerial ethical leadership underscores the relevance of this study, as such leadership promotes business sustainability, fosters inclusivity, and encourages social responsibility while positively shaping employee ethical behaviour (Fatoki, 2020:63). Fairness plays a critical role in this process, influencing employee motivation and wellbeing, and fostering

trust, respect, and a sense of value within the workplace (Hadebe, 2022:43). By demonstrating care, fairness, and integrity, managerial ethical leadership can build trust with employees and establish strong communal relationships (Fu *et al*., 2020:4). Furthermore, managerial ethical leadership enhancing trust through decision making guided by honesty, integrity, fairness, accountability, loyalty, and empathy, enabling them to navigate ethical business challenges effectively (Ndlazi, 2023:29). Through these practices, leaders maximise their influence and cultivate a caring climate that strengthens employee ethical behaviour.

CHAPTER 3 RESEARCH METHODOLOGY

3.1 INTRODUCTION

This chapter discusses the methodology framework used for this study, which supports the primary objective of determining the influence of managerial ethical leadership on a caring climate and employee ethical behaviour in South African SMMEs, as well as the empirical objectives described in Chapter 1. The first section of this chapter, Section 3.2, explains the research design, followed by the research approach in Section 3.3. The sampling strategy (Section 3.4) includes an outline of the target population, sampling frame, method of sampling, and sample size employed in this study. Section 3.5 discusses the data collection method used in relation to the questionnaire design, question format and questionnaire layout. The pre-testing of the questionnaire is covered in Section 3.6, followed by the administration of the questionnaire in Section 3.7. The statistical analysis (Section 3.8) explained within this chapter includes exploratory factor analysis (Section 3.9), reliability analysis (Section 3.10), validity analysis (Section 3.11), descriptive statistical analysis (Section 3.12), correlation analysis (Section 3.13), hypotheses testing (Section 3.14), multicollinearity analysis (Section 3.15), structural equation modelling (Section 3.16) and ANOVA (Section 3.17). Lastly, the synopsis for this chapter is provided in Section 3.18.

3.2 RESEARCH DESIGN

A research design is the framework of decisions that organises and directs the research process (Hunziker & Blankenagel, 2024:1). These decisions allow researchers to do an enquiry into the study's argument to produce answers that align with the researcher's primary objective (Hunziker & Blankenagel, 2024:1; Aramide *et al*., 2023:18). Asenahabi (2019:76) highlights that the objective of a research design is to transform the research problem into a structured plan for data analysis, with the ultimate goal of answering the research question. According to Osuagwu (2020:48), a research design centres on ‘‘generalizability’’, which assesses the tested research interpretation in varied circumstances and maintains the four elements of comparison, manipulation, control, and generalisability. The researcher selects the research design based on the research question, the goal, and the execution of the research (Coy, 2019:71). A research design can fall into of three categories, namely exploratory, descriptive, and causal research designs (Babin & Zikmund, 2016:53; Gupta & Gupta, 2022:6).

An exploratory research design focuses on generating new ideas and insights. It is characterised by a high degree of flexibility and adaptability, allowing researchers to adjust methods as the study progresses (Malhotra, 2019:92). The use of an exploratory research design aims to

investigate undefined or new problems and plays an instrumental role in determining the data collection method, research design and selection of subjects (Pawar, 2021:50). Wiid and Diggines (2024:79) state that since the primary goal of exploratory research is to gain insight and deepen understanding rather than produce precise, replicable data, this approach typically relies on various qualitative methods. The key techniques used as part of an exploratory design are secondary data analysis, case studies, experience or pilot surveys, in-depth interviews and focus group interviews (Satpathy *et al*., 2023:12).

A descriptive research design is a scientific approach that that enables a researcher to observe and systematically describe the behaviour of subjects without attempting to influence or manipulate them (Verma, 2024:32). According to Malhotra (2019:96), a descriptive research design is a structured and preplanned approach used when the researcher has prior knowledge of the problem, allowing for the formulation of specific hypotheses and the collection of clearly defined information from large, representative samples. Its aim is to provide detailed information by addressing questions related to who, what, where, when, and how (Burns & Veeck, 2019:67; Ghanad, 2023:3796). A key advantage of a descriptive research design is that it is straightforward to conduct and interpret. It typically includes methods such as observation, surveys, and case studies, which serve as practical techniques for gathering factual information (Aggarwal & Ranganathan, 2019:36; Pawar, 2021:48; Patel & Patel, 2019:49). Descriptive research can be conducted by following one of two designs, namely a cross-sectional or a longitudinal designs. A cross-sectional design collects data at a single point in time from one or more groups to capture a snapshot of their characteristics or behaviours, whereas a longitudinal design involves gathering data from the same group or groups over a specified period to observe changes or trends (Verma, 2024:32; Wiid & Diggines, 2024:81).

A causal research design aims to establish and analyse the cause-and-effect relationships between phenomena by examining how variations in the independent variable bring about changes in the dependent variable (Seeram *et al*., 2021:17; Wiid & Diggines, 2024:82). Burns and Veeck (2019:70) state that experiments are commonly employed to examine causal relationships as they allow researchers to determine how one variable influence another. Malhotra (2019:101) states that similar to descriptive research, causal research follows a structured and well-planned design. However, while descriptive studies can identify associations between variables, they cannot determine cause-and-effect relationships. Causal research, on the other hand, focuses on establishing causality by manipulating independent and dependent variables in a controlled environment so that influencing factors are carefully monitored or minimised to ensure accurate results.

From these three research designs, a descriptive design was deemed the most suitable as it allows for the objective analysis of relationships between managerial ethical leadership, a caring climate and employee ethical behaviour, without manipulating any of the study variables. Furthermore, a single cross-sectional design was adopted as the data were collected from one sample of participants at a specific point in time.

3.3 RESEARCH APPROACH

The research approach refers to a framework or plan that helps researchers achieve the research objectives by highlighting strategies and methodologies essential for collecting, analysing and interpreting the data collected (Hassan, 2024). According to Verma (2024:11), researchers generally follow either a quantitative or a qualitative approach to collect information.

The quantitative approach relies on structured methods and statistical techniques to investigate psychological, social, and economic processes by analysing numerical trends and relationships (Ahmad *et al*., 2019:2828). A quantitative approach is quantity-based (Patel & Patel, 2019:48), because it uses empirical statements and statistical methods such as closed-end questionnaires that centre in theory and hypotheses (Haradhan, 2020:3; Taherdoost, 2022:54). According to Burns and Veeck (2019:121), quantitative research involves collecting data from a large number of respondents using a set of structured questions with predefined response options. Malhotra (2019:153) highlights that while quantitative research aims to measure and analyse variables numerically through statistical procedures, qualitative research emphasises understanding, meanings, and insights from unstructured, descriptive data. A qualitative approach is a naturalistic research method in which extensive textual or observational data are collected and analysed to identify patterns and common themes within and across data sets, ultimately leading to theoretical saturation (Coy, 2019:72). Burns and Veeck (2019:122) concur, indicating that qualitative research gathers and interprets open-ended, unstructured data by examining what people say and do, allowing for flexible and natural observations rather than fixed or standardised measures. In addition, qualitative research is generally known to be unstructured because it centres in human behaviour and involves opinions, attitude, social interaction. It relies on a small sample and gathers data by means of open-ended questions (Patel & Patel, 2019:49; Mkandawire, 2019:143; Verma, 2019:11).

This study adopted a quantitative approach, using structured questionnaires distributed to a large sample of participants. The quantitative approach made it possible to use statistical analysis to test the study's hypotheses and address the main research objective. The sampling strategy is outlined in the next section.

3.4 SAMPLING STRATEGY

A sampling strategy outlines the criteria for including or excluding elements, thereby establishing clear boundaries within which items or participants can be chosen from the study population (Mweshi & Sakyi, 2020:181). According to Berndt (2020:224), a sampling strategy helps determine the level of confidence in the study's findings and supports the ability to generalise the results to the wider population. A researcher can generate data from a sample or a census depending on the research study (Rose *et al*., 2024:214). A sample consists of the units or elements that meet the researcher's criteria and are drawn from the population while the census is a complete inclusion of all elements in the entire population (Gratton & Jones, 2010:304; Mishra & Alok, 2019:24). A sample is often the most practical approach for conducting research, as it is more cost-effective, convenient, and time-efficient than a census, which can be expensive and prone to errors if not carefully planned (Verma, 2024:72; Kumar, 2022:68). The next section provides an in-depth review of the sampling strategy, which includes the target population, sampling frame, sample methods and sample size (Hair *et al*., 2020:181).

3.4.1 Target population

Defining the target population is the initial stage of the sampling process, as it must correspond with the research problem, objectives, and overall scope of the study (Kumar *et al*., 2022:81; Rose *et al*, 2024:215). A target population includes all people or items about which the researcher seeks to draw conclusions or make generalisations (Rahman *et al*., 2022:46). Malhotra (2019:357) cautions that it is essential to define the target population accurately, as an unclear or vague definition can lead to research outcomes that are unreliable or even misleading.

The selected target population for this study is non-managerial employees who work for South African SMMEs. SMMEs in South Africa do not employ more than 250 employees (refer to Chapter 2, Section 2). The target population for this study was framed according to this definition and the added criterion that they had to be non-managerial employees employed at a South African SMME.

3.4.2 Sampling frame

The second step of the sampling process is the sampling frame. A sampling frame refers to a complete list or database of all the elements in the population from which the sample is selected (Hair *et al*., 2020:183). According to Malhotra (2019:358), a sampling frame can be a list of instructions that help identify the target population, for example, a telephone book, an association or company directory, a purchased mailing list, or a city map. However, Burns *et al*. (2017:239)

indicate that when a full list of the population cannot be obtained, the sampling frame can be based on whatever access the researcher can practically establish.

The researcher did not rely on a sampling frame for this study as an international research company was employed to collect the required data from South African SMMEs. In line with the POPI Act, the researcher's access to the personal information of employees at SMMEs was restricted. The international research company complies with relevant regulations and provides access to verified and globally diverse participant pools that are screened in advance and carefully selected. Moreover, in line with the target population, this study only made use of the international research company's South African database.

3.4.3 Method of sampling

The third step of the sampling process is the use of a selection method to select the sample. The method is determined by objectives, the availability of financial resources, time constraints and the research problems (Verma, 2024:72). In quantitative research, the sampling method is used to identify a subset of characteristics of the represented population for the sample (Rose *et al*., 2024:216). Sampling methods can be divided into two categories, namely probability and non-probability sampling (Hair *et al*., 2020:183). Probability sampling is based on the law of statistical regularity, which states that when individuals are selected at random, the characteristics of the sample are likely to reflect those of the larger population (Verma, 2024:77). Non-probability sampling refers to the purposeful selection of objects or subjects for the sample according to the researcher's objectives or expertise, relying on individual judgement (Adeoye, 2023:90). Non-probability sampling is also called deliberate and purposive sampling due to the specific selection of the population sample that accurately represents the objectives of the study (Kumar *et al*., 2022:79). The non-probability sample provides a research study with good estimates of the selected sample characteristics, but there can be no objective evaluation because of the non-probability of selection (Malhotra, 2020:361). Probability sampling means that members of the population have an equal chance of being selected, and no individual is favoured over another. Figure 3.1 illustrates the distinction between probability and non-probability sampling.

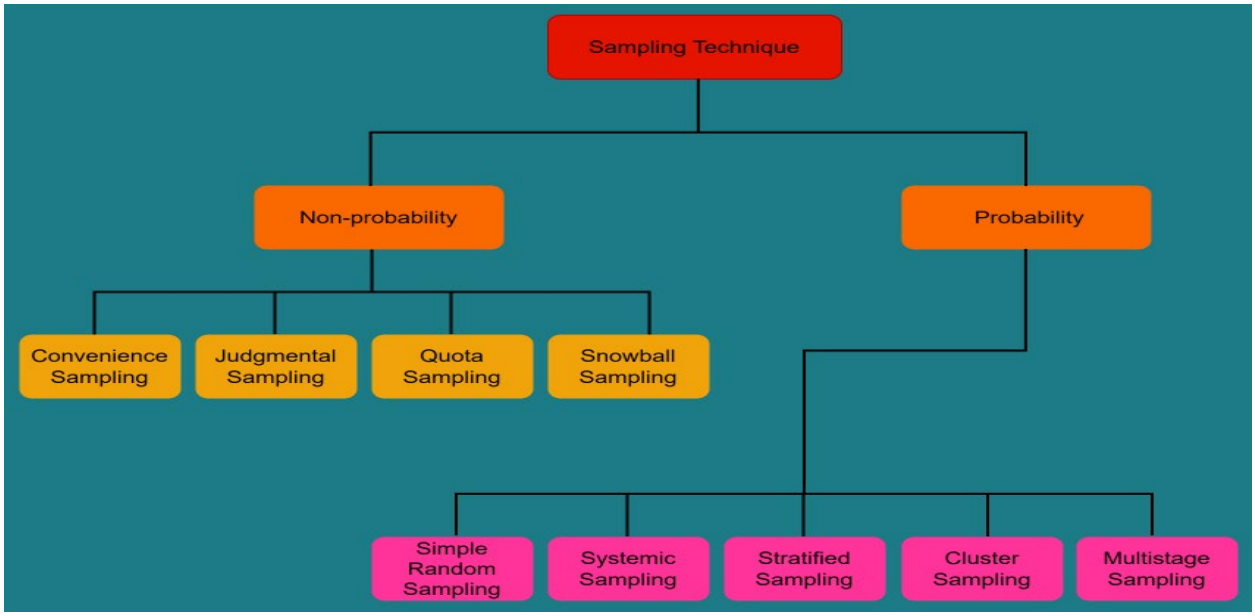


Figure 3.-1: Sampling techniques (Hair *et al*., 2020:192; Berndt & Petzer, 2011:174)

Non-probability sampling may rely on one of several techniques, including convenience, purposive (judgemental), quota, and snowball sampling (Stephen & Velmurugan, 2020:91).

- **Convenience sampling** involves the selection of research subjects who are willing to participate and can provide the necessary information (Hair *et al*., 2020:192). This implies a subjective approach rather than an objective one (Burns *et al*., 2017:253). The benefit of direct participation is the quick response, easy delivery, and cost-effectiveness (Stephen & Velmurugan, 2020:83). For example, mall interception provides direct interaction with participants and allows for quick responses. The challenge with convenience sampling is that selection bias is evident as the representation differs from the target population, such as respondents' self-selection (Hair *et al*., 2020:192; Malhotra, 2020:363). Furthermore, convenience sampling is limited in that it cannot support market research that requires population inferences or descriptive or causal conclusions. Nevertheless, it is well-suited to exploratory research that seeks to generate preliminary ideas, insights, or hypotheses, and is commonly applied in focus groups, questionnaire pretesting, and pilot studies (Malhotra, 2020:363). Precautions must be taken when data are captured to avoid biased estimation and sample errors due to the population parameter (Kumar *et al*., 2022:80).

- **Purposive sampling (judgment sampling)** refers to the researcher using their own judgement to select the sample that would be most useful for the purpose of the research (Mexon & Kumar, 2020:43). Judgemental sampling is best used when the target population is smaller but can still meet its objective (Bhardwaj, 2019:161). In support, Hossan *et al*.

(2023:217) argue that the individualised selection of participants is due to the specific traits that align with the research study, and a generalised conclusion from previous research must be avoided. To avoid misinterpretation of results, an expert in the field is required because their judgement can influence the final results (Verma, 2024:79) The benefits of judgement sampling are that it is less costly, more readily accessible, more convenient, and the specific selection of participants aligns with the research study. The disadvantage are that there is no absolute guarantee that the sample represents the selected population and the method relies on the research expert's judgement (Kumar *et al*., 2022:81).

In this study, non-probability convenience sampling was used as the international research company distributed the survey to non-managerial employees of the SMMEs listed on their South African database. This is because non-probability sampling was used in this study to test the theoretical relevance, and a convenience sample ensured the possible attainment of the research objectives (Rose *et al*., 2024:219-220). Furthermore, convenience sampling provides easy access to the selected targeted sample (South African SMMEs) irrespective of the geographical location while cost-effectiveness and quick responses were additional critical factors for this selection (Rose *et al*., 2024:220). Non-probability convenience sampling enables the study to employ personal judgemental based on non-random sample as to align with the research specific criteria (Kumar *et al*., 2022:79).

- **Quota sampling** is described as the identification of strata with unique characteristics shared with the population and the selection of individuals in proportion to the population (Berndt, 2020:226). The unique characteristics are selected based on the research objective, and these characteristics become the quota selection of the sample members, which results in a biased and less representative sample (Bhardwaj, 2019:162). The sub-group of the sample is homogeneous, and non-random selection is employed as the variables are heterogeneous. The most commonly used criteria for quotas are gender, age, ethnicity, and socio-economic background (Kapur, 2018:46). The benefits include that it is easy to conduct, suitable when there are time constraints, it saves time and is doable with limited budget, it helps to compare different samples. The disadvantage is that there is no random selection and there is a high risk of bias (Adeoye, 2023:92).

- **Snowball sampling** method is essential when researchers struggle to reach the target sample (Mexon & Kumar, 2020:34). Snowball sampling is used in exploratory studies, but bias is a danger because of the continuous engagement with the sample (Ahmed, 2024:3). The benefits of snowball sampling include access to unfamiliar target audience, it is quick and simple to conduct due to reliable sources, and it is convenient and inexpensive. The

disadvantages are low population reach and incomplete results (Adeoye, 2023:92). Probability sampling includes simple, stratified, systematic, cluster and multistage sampling techniques (Stephen & Velmurugan, 2020:87).

- **Simple random sampling** refers to sampling where every member of the population has an equal chance of being selected (Mexon & Kumar, 2020:29, Stephen & Velmurugan, 2020:79). When using simple random sampling, no other items influence the sample. It must be a homogenous sample, possess the same attributes that align with the research study, and the homogeneity should include age, sex, income, social or religious or political affiliation, geographical region (Kumar, 2020:70). The benefit of simple random sampling is that results have a lower risk of bias, and statistical methods can be used to determine optimal sample size, sampling errors, and the accuracy of research results (Stratton, 2021:373).

- **Systematic sampling** explains that every individual is chosen continuously from a population list, starting from a random point (Mexon & Kumar, 2020:29). This method helps to determine the sample needed (n) and the sample frame (N) (Hossan, 2023:215). Systematic sampling enables the researcher to select the elements based on predefined constructs. It is calculated by dividing the population size by the number of the specific sample size which results in sample interval (Tuner, 2020:9; Adeoye, 2023:89). Furthermore, this sampling method ensures even distribution across the population (Turner, 2020:9). The benefits of this method include that it is simple to plan, conduct, evaluate and comprehend, provides the researcher with control and rigor to fit specific criteria, and eliminates clustered selection. The disadvantage is the population's size, which can be manipulated to align with the researchers' objectives (Adeoye, 2023:89).

- **Stratified sampling** entails that the population is divided (stratified) into separate subgroups, and sample sizes are calculated for each one (Rose et al., 2024:219). Stratification is designed in accordance with the predetermined criteria of the study based on past experience (Hair et al., 2020:188). The primary purpose of stratification is to ensure a representative sample while analysing issues of less homogeneity (Bhardwaj, 2019:159). The challenge with stratification sampling is when the population knowledge is known (Ahmed, 2024:3). The benefits of stratification sampling include accurate estimation of subgroups that align with the research study, high analytical statistical power in group differentiation, low cost and data collection due to the use of subgroups, and maintaining diversity in groups. The drawback is the complexity of analysis due to unestablished strata (Adeoye, 2023:90).

- **Cluster sampling** entails that the population is sorted into groups with heterogeneous characteristics called clusters and then a sample of clusters is selected using simple random sampling (Ahmed, 2024:3; Kumar, 2020:76). This method requires expert knowledge of the sampling frame and population. It is cheaper and less time-consuming (Sarstedt & Mooi, 2019:41). When the clusters are developed, the researcher can either produce a one-stage cluster, which entails that all the selected clusters are studied, or two-stage clusters, where random sampling is used to select a few elements from the selected cluster (Kumar *et al*., 2022:77). The benefits of clustering include that fewer resources are needed, there are lower administrative and travel costs, and feasibility increased as the sample is divided into homogeneous groups. The drawbacks are biased representation of the population and conclusion, it can be imprecise, it is difficult to compute and interpret results, and it is highly susceptible to sample error (Adeoye, 2023:90; Malhotra, 2019:373).

- **Multistage sampling** entails that two or more sample selection steps are used in one operation (Rahman, 2020:49). This means that the sampling is done in several stages (Verma, 2024:79). The multistage method is useful when the elements of the population are spread across a widespread geographical region (Kapur, 2018:44).

In this study, non-probability convenience sampling was used as the international research company distributed the survey to non-managerial employees of the SMMEs listed on their South African database. However,

3.4.4 Sample size

Hair *et al*. (2020:194) state that it is necessary for a researcher to determine an accurate sample size before data collection starts. The selection of a sample size requires careful balance because undersized samples can lead to inaccurate results while large samples are expensive and lack validity (Ahmed, 2024:6). According to Malhotra (2019:359), a sample size is often determined by the use of previous similar sample size research.

A sample of 200 non-managerial employees of SMMEs in South Africa was deemed suitable for this study as it is in line with previous studies conducted on SMMEs. Previous researchers, such as Bruwer et al. (2018:714), received 197 responses in a study on internal control activities, managerial conduct, and sustainability in South African SMMEs, and Rambe and Ndofirepi (2017:7) obtained 108 responses to investigate the employee ethical conduct perspective that influences organisational conduct. The section explains the data collection method for this study.

3.5 DATA COLLECTION METHOD

Data collection is crucial for statistical analysis (Stephen & Velmurugan, 2020:105) and begins after the formulation of the research problem and research design (Kapur, 2018:33). Data refers to raw or unprocessed facts that are gathered through experience, observation, or experimental investigation (Osuagwu, 2020:49). According to Taherdoost (2021:10), data collection is the systematic process of gathering information to enhance understanding of the research problem. Data can belong to one of two categories, namely primary and secondary data. Burns and Veeck (2019:90) indicate that primary data consist of information collected first-hand by the researcher specifically for a study, whereas secondary data refer to existing information previously collected by other individuals or organisations for a different purpose. Malhotra (2019:193) highlights that surveys are the most common way of gathering primary data.

Surveys enable researchers to gather substantial amounts of data in a structured, cost-effective, and time-efficient way, often involving large samples (Burns *et al*., 2017:171). With a survey approach, information is obtained from selected participants through verbal or written communication. These participants, known as respondents, usually complete a questionnaire to provide the required data (Wiid & Diggines, 2024:139). According to Malhotra (2019:194), survey methods can be categorised according to the way questionnaires are administered as this determines how data are collected from respondents. The main survey methods include telephone surveys, personal interviews, mail surveys, electronic surveys, and mobile surveys. Telephone surveys may be either traditional or computer-assisted, while personal interviews are conducted face-to-face in a range of settings. Mail surveys are distributed and returned through the postal system, whereas electronic surveys are conducted via e-mail or online platforms. Mobile surveys are completed using handheld devices such as smartphones or tablets. Burns and Veeck (2019:159) differentiate between surveys that may be conducted via person-administered, computer-assisted, computer-administered, or self-administered avenues. With person-administered surveys, interviewers ask questions directly and record responses manually, while computer-assisted surveys follow the same process but use technology to support data recording. Conversely, a computer presents the questions and automatically captures the participants' answers with computer-administered surveys. Lastly, self-administered surveys allow respondents to complete questionnaires independently without interviewer involvement. Wiid and Diggines (2024:159) state that a computer-aided self-administered survey is a form of electronic data collection where respondents independently complete a questionnaire on a computer, with the system recording and transmitting their responses once finalised.

For the purpose of this study, an electronic self-administered questionnaire was used to gather participants' perceptions of the influence of managerial ethical leadership on a caring climate and employee ethical behaviour at South African SMMEs. Burns and Veeck (2019:184) and Burns *et al*. (2017:172) state that a recent and increasingly popular method of data collection involves the use of online research panels, which comprise large groups of pre-recruited and compensated respondents that provide researchers with quick access to specific target populations while minimising data collection errors. As discussed in Section 3.4.2, an international research company was employed to collect the required data from the South African SMMEs. With their help, this study made use of a computer-assisted, self-administered questionnaire. Respondents independently completed an electronic survey administered by the international research company. The self-administered questionnaire was submitted to the Ethics Committee of the Faculty of Economics and Management Sciences at the North-West University (Vanderbijlpark Campus) and after review, they granted ethics clearance (Ethics Committee Number: NWU 01961 23 A4) (Annexure F). The following sections describe the self-administered questionnaire as the research instrument used for this study.

3.5.1 Questionnaire design

A questionnaire is an essential tool for any research study (Taherdoost, 2019:1). It is a structured research instrument designed to translate the study's objectives into specific, standardised questions for respondents. A questionnaire ensures uniformity in data collection, promotes respondent engagement, and provides a consistent record of responses for analysis (Burns & Veeck, 2019:203). It offers several advantages, including cost efficiency, rapid data collection, flexibility in administration, and the ability to maintain respondent anonymity. It also enables access to geographically dispersed samples and helps minimise response bias by reducing interviewer influence on participants' answers (Rose *et al*., 2024:242-243).

Questionnaire design plays a vital role in determining response rates and the overall quality of the collected data. To be effective, a questionnaire should be simple, clearly structured, and as brief as possible while being specifically adapted to the characteristics of the target audience (Stephen & Velmurugan, 2020:117). Pallant (2016:25) cautions that if a questionnaire is poorly planned or designed, the data obtained will not be sufficient to answer the research questions accurately. As such, an effective questionnaire should be concise, clearly worded, and free from biased language, with each item presented individually to ensure respondent understanding and to enhance the validity and reliability of the measured constructs (Nastasi, 2020:166). In an effort to achieve validity and reliability in questionnaire design, McGivern (2022:405) suggests that the instrument should accurately measure what it intends to measure and remain relevant, clear, and

acceptable to respondents. It must be easily understood and consistently interpreted by all respondents to ensure that responses are accurate, meaningful, and unambiguous.

The questionnaire should be visually appealing, and the questions and answer options must be clear to ensure that there is no misunderstanding and that inaccurate responses are avoided (Davis, 2020:12). The inaccurate responses that should be avoided include incorrectly pre-coding closed questions, leading questions, double-barrelled questions, vague questions, threatening questions, the incorrect use of concepts, and questions that are subjective to a positivity bias (Gratton & Jones, 2010:156-157). Yaddanapudi and Yaddanapudi (2019:335) state that an effective questionnaire requires a logical and well-structured sequence of questions to promote clarity and maintain respondent focus. Burns and Veeck (2019:212) state that an introduction serves as the opening of a survey and is presented to respondents before they begin answering questions. It outlines the researcher's identity, explains the purpose of the study, clarifies why participants were selected, and requests their consent to participate. It also helps determine whether respondents meet the eligibility criteria for the study through the use of screening questions.

The self-administered questionnaire used in this study followed the above guidelines to ensure a successful questionnaire design. A cover letter, serving as the introduction, outlined the researcher's identity, explained the purpose of the study, clarified why the participants were selected, and included an informed consent request. Two screening questions were included to make sure the respondent met the criteria of aligning with the definition of SMMEs (refer to Chapter 2, Section 2) and not being employed in a managerial position. The self-administered questionnaire is included in Annexure A.

3.5.2 Question format

The question format can affect the quality and quantity of data collected and the overall results (Taherdoost, 2022:8). To ensure quality and quantity accuracy, the question format must capture the participants' interest and attention, increase their willingness to participate, and encourage thoughtful and honest answers (Sharma & Ruikar, 2025:1). Question format can be divided into two categories, namely unstructured and structured questions (Kapur, 2018:35). Unstructured questions, mostly in the form of open-ended questions, allow respondents to answer in their own words rather than choosing from predetermined options, thus enabling them to express their thoughts or provide numerical responses freely (Cox, 2020:167). Structured questions, mostly in the form of closed-ended questions, provide respondents with a predetermined set of response options from which they must choose the answer that best reflects their view (Hair *et al*., 2020:282).

Open-ended, or unstructured questions place no limits on responses, allowing participants to provide detailed and elaborated answers in their own words (Taherdoost, 2020:2). They are also called infinite response questions or unsaturated questions and help with rapport, the collection of information, increase understanding, and the recollection of past experience (Kumar *et al*., 2022:117). This is because open-ended questions generate responses that extend beyond the initial boundaries of the research problem and vary in both complexity and the level of openness they allow (Rose *et al*., 2024:253). Open-ended questions generate qualitative data, which requires systematic coding and involves the development of a coding scheme. The scheme is used by multiple coders to achieve a high level of inter-coder agreement to ensure reliability (Krosnick & Presser, 2010:266). The main disadvantages of open-ended questions are that they are costly, time-consuming, and challenging to administer effectively, often making it difficult to capture accurate responses and limiting their suitability for quantitative analysis (Krosnick & Presser, 2010:266).

Closed-ended questions, or structured questions, offer participants easy-to-complete questions due to the standardisation of items, which in turn allows for quick aggregation, quantification, and analysis of data (Ranganthan & Caduff, 2023:153). Closed-ended questions are useful for gathering information about preferences, attitudes, opinions, behaviours, demographics, and fact-based information that help categorise respondents or situations (Ikart, 2019:3). The advantage of closed-ended questions is that they produce more consistent responses with fewer discrepancies, which simplifies data organisation and analysis (Taherdoost, 2022:8). Structured questions can take the form of multiple-choice, dichotomous, or scale items. In multiple-choice questions, respondents select one or more options from a list provided by the researcher, whereas dichotomous questions offer only two possible responses, such as “yes” or “no” or “agree” or “disagree” (Malhotra, 2019:328). A scale item consists of a series of items arranged in order of value or intensity, allowing respondents to indicate their position or level of agreement on a measurable continuum (Wiid & Diggines, 2024:192).

Measurement refers to the assignment of values, such as labels or numbers, to reflect the attributes a variable (Cox, 2020:52). Scaling involves assigning measured objects on the continuum and provides a sequential number assigned to the object (Mexon & Kumar, 2020:65). Scales can be divided into two classes, namely comparative and non-comparative scales. The last-mentioned is suitable for this research method (Malhotra, 2019:274). A comparative scale has a more direct approach of comparing stimulus objects, and the data must be interpreted in relative form. It relies on ordinal and rank order properties. Non-comparative scaling provides an independent and individualised single object evaluation per research study specification (Kumar

et al., 2022:55). It has a one-at-a-time responding process and data are in an interval scale and can be designed in a continuous, metric and numerical manner (Kumar *et al*., 2022:55).

Non-comparative scales can be divided into two categories, which are continuous and itemised rating scale (Mexon & Kumar, 2020:71). A continuous rating scale (graphic rating scaling) refers to a process where respondents rate the questioned object by placing an appropriate mark on the continuously lined questioned object (Mexon & Kumar, 2020:71). With a continuous scale, respondents are not limited to the research statement object and have different approaches, such as the vertical or horizontal line and in numerical or brief descriptions form (Malhotra, 2019:290). Itemised rating scales offer respondents a few statements and they select one answer based on their best representation (Verma, 2024:49). The structure scale of itemised rating is categorised in order and responses are restricted to one item that describes the product, brand, company or product attribute being rated. Common scales used for itemised rating include Likert-type (summated scale) scales, semantic differential scale and stapel scale (Kumar *et al*., 2022:56).

- **Likert scale:** This type of scale aims to evaluate attitudes or opinions and uses a five-point or seven-point scale that assesses the strength of agreement or disagreement with the statement (Hair *et al*., 2020:245). The response of each participant is accessed with a numerical score, and overall score is achieved by adding up the different scores that represent the response “continuum” (Kapur, 2018:40). Likert scales are the most popular method in social science research because of its simplicity and high reliability (Taherdoost, 2019:4). Pescaroli *et al*. (2020:408) confirm that the Likert scale provides flexible assessment but restricts more in-depth and complex analysis. However, a Likert scale remains instrumental in management research if respondents feel that the interval points are equal in questioning size (Hair *et al*, 2020:243), thereby providing a true representation of their reflection on the research matter. The scale provides respondents with “flat” or “plain” statements to illustrate the intensity of the degree of agreement (satisfaction) and disagreement (dissatisfaction), aiming to analyse their attitudes to the research study (Dalati, 2018:90; Burns *et al*., 2017:209). This provides an aggregated attitudinal totality of respondents by calculating the number of respondents' selections between 1 and 5 (Likert-scale five items) or 1 and 6 (Likert-scale six items), and creates a summated rating scale (Hair *et al*., 2020:245). Six Likert-scale items were selected because of the ease, flexibility, manageability and convenience that enable participants to answer easily (Tabujaya, 2022:92).

- **Semantic scale:** A semantic scale aims to measure the psychological analysis of a respondent with an object item (Verma, 2019:50). It centres on the differential dimensions connotative of an object. A bipolar rating scale employs a 7-point rating that asks one or more

respondents to rate one or more concepts on each scale item (Verma, 2020:50-51). It centres on the differential dimensions connotative of an object. A bipolar rating scale employs a 7-point rating that asks one or more respondents to rate one or more concepts on each scale item (Verma, 2020:50-51). This scale uses end statements that indicate respondent attitude or feeling by selecting either good or bad (option 1) or happy or sad (option 2) (Rose *et al*., 2024:51). Semantic scales aim to empower the research study to measure the respondent's attitudinal direction and intensity simultaneously (Mexon & Kumar, 2020:63).

- **Stapel scale:** A Stapel scale uses a "single criterion" with 10 categories ranging from -5 to +5 without a neutral point (zero) (Kumar *et al*., 2022:56). It not only depends on bipolar but also on positive and negative numbers, ranging from +3 to –3, determined by the discrimination abilities of respondents. The neutral point is optional dependent of the researcher preference (Burns & Veeck, 2017:199). The scale design is vertical, and the respondents are provided with two options for each item responses, which is accurate or inaccurate. The higher the selected number, the higher the accuracy of the questioned item (Malhotra, 2019:295). The benefits of using a Stapel scale include that it is easier to create compared to a semantic differences scale, as bipolar formation is unnecessary, and it is flexible to administer, allowing participants to be comfortable with negative numbers (Burns & Veeck, 2017:199).

In this study, a structured self-administered questionnaire was designed. Section A recorded the demographic information of the participants, which consisted of eight multiple-choice questions. These questions enquired about mother tongue, age, business structure, years of business operation, type of employment, length of employment with SMMEs, and type of industry. Section B consisted of the three constructs of this research study. The first construct, which is managerial ethical leadership, was measured using four items adapted from Al Halbusi *et al*. (2019). The second construct is an ethical caring climate, which included three items (Victoir & Cullen, 2005; Al Halbusi *et al*., 2019). The last construct is employee ethical climate, which comprises three items (Al Halbusi *et al*., 2019). A six-point Likert scale was selected for Section C instead of the seven-point Likert scale to exclude the neutral point (Mooi *et al*., 2018:73). The neutral point found in the seven-point Likert scale was excluded because participants will be more likely to choose the unsure statement and not consider the other options that provide a more favourable analysis of the study (McDaniel & Gate, 2015:260).

3.5.3 Questionnaire layout

The questionnaire layout is arguably the most determining factor in the successful execution of a research study. The sequencing of questions can ensure a logical flow that makes the survey

easy to follow and complete, beginning with straightforward factual items and progressing to more reflective ones, while grouping related topics to maintain coherence and avoid abrupt or overly personal questions (Gratton & Jones, 2010:155). A key in the questionnaire layout is the literacy level of participants (Taherdoost, 2021:34). The effectiveness of a questionnaire layout lies in its ability to engage respondents in a manner that feels inviting rather than intimidating. This can be achieved through a professional design that includes a clear title and layout, instilling confidence and understanding while encouraging participation and improving response rates (Patra, 2019:16). The introduction serves as foundation that introduces the researcher, the objectives of the research, the need for the questionnaire, the use of captured data. It also asks for the cooperation of participants and ensures confidentiality (Kumar *et al*., 2022:111). The screening question is the next step in the process, ensuring that respondents meet the predetermined criteria of the target population (Hair *et al*., 2020:288). The remaining structure (the body) of the questionnaire provides the participants with the elements of the study.

The self-administered questionnaire used for this study (refer to Annexure A) consisted of a cover letter and two screening questions as outlined in Section 3.5.1. Following the cover letter and screening questions, the questionnaire consisted of two sections. Section A (A1-A8) requested demographic information relating to the participants' mother tongue, age, and gender. Furthermore, Section A also requested participants to provide information about the business, which included questions on the type of business structure, years of operation, type and length of employment in the business, and the type of industry. Section B (B1-B10) consisted of subcategories that were used to gather information pertaining to three constructs, including managerial ethical leadership (B1-B4), caring climate (B5-B7), and employee ethical behaviour (B8-B10). The questionnaire was pre-tested before dissemination to the sample. The next section discusses the pre-testing of the questionnaire.

3.6 PRE-TESTING OF THE QUESTIONNAIRE

Pre-testing is essential for any research study because it allows for comprehensibility, relevance, acceptability, accuracy, consistency of the responses and feasibility of measurement instrument (Hair *et al*., 2020:298; Stephen & Velmurugan, 2020:96). It serves as an initial validation process that helps detect problems related to wording, language, or questionnaire structure that may influence how respondents interpret the questions (Sharma & Ruikar, 2025:6). Moreover, pre-testing helps determine the actual time for completion and guides an effective questionnaire that meets the objectives of the research to attain reliability and validity (Ranganthan & Caduff, 2023:155; Krosnick & Presser, 2010, 295). Malhotra (2019:338) differentiates between two common pre-testing methods, namely protocol analysis and debriefing. In protocol analysis,

respondents verbalise their thoughts while completing the questionnaire, allowing researchers to identify problematic wording or structure. Debriefing takes place after completion, where respondents discuss their interpretations, clarify their answers, and highlight any difficulties they experienced. Sarstedt and Mooi (2019:76) suggest that a small group of experts, generally three to six people, can complete the questionnaire and offer feedback on its clarity and design.

Prior to administering the self-administered questionnaire to the pre-selected target sample, this study made use of the debriefing method to pre-test the questionnaire to ensure clarity and validity. Four experienced researchers in the field were requested to complete the questionnaire, whereafter they were asked if they clearly understood the content of the cover letter and instructions and if they experienced any difficulties with the question format, layout, language or wording of the questionnaire. The time required to complete the questionnaire was also determined during the pre-testing. It was confirmed that 12 minutes was sufficient. After pre-testing, the final questionnaire (main survey questionnaire) was administered to the pre-selected target sample with the help of an international research company, as described in the next section.

3.7 ADMINISTRATION OF THE QUESTIONNAIRE

The main survey questionnaire was converted to an electronic format using Microsoft Forms, and the link was submitted to the international research company for distribution after ethics clearance had been received. Specific instructions were given to the international research company to ensure that the questionnaire was administered to the correct target sample. These instructions included only distributing the questionnaire to the South African database, including 300 South African SMMEs, and aiming to reach non-managerial employees. By following relevant data collection protocols and in adherence to ethics standards, the international research company distributed the questionnaire over a period of six months, between August 2024 and February 2025. According to the international research company's policies, participants receive remuneration for completing the questionnaire, which may be in the form of monetary payments, a reward system, gift cards, or the like. Once the required sample of 300 responses was reached, the international research company shared the survey statistics report that summarises the responses with the researcher via e-mail.

3.7.1 Data preparation

Data analysis is a crucial component of research, as it transforms raw data into actionable insights. However, before this can occur, the data must be properly prepared and processed to ensure accuracy and relevance (Wiid & Diggines, 2024:274). The main purpose of data preparation is to clean data by removing inaccurate data such as redundant, incomplete, or

incorrect data (Stephen & Velmurugan, 2020:127). Three well established methods of data preparation include editing, coding, and tabulation (Babin & Zikmund, 2016:393).

3.7.2 Editing

Data editing is the first step before data analysis. It refers to inspecting the collected data for completeness and consistency, correcting errors, and resolving discrepancies to improve data quality (Hair *et al*., 2020:327). This process involves reviewing questionnaires to detect responses that are illegible, incomplete, inconsistent, or unclear (Malhotra, 2019:436). Editing data entails revising and adjusting the collected information to correct errors and improve data quality. The data are systematically tabulated to ensure accuracy, consistency, and overall data quality (Kapur, 2017:48).

The responses on the survey statistics report were reviewed and any questionnaires with unanswered items were excluded from the dataset. Furthermore, the responses to the two screening questions were analysed and the questionnaire responses were deleted if the participant indicated that there are more than 250 employees at the business where they are employed, or if the participant indicated that they were employed in a managerial position.

3.7.3 Coding

Coding involves giving numerical or descriptive labels to data so that large amounts of text can be simplified into smaller, meaningful groups for analysis (Hair *et al*., 2020:312). It organises and simplifies data, groups similar responses together, and converts essential information into a form that can be easily analysed (Mexon & Kumar, 2020:78). Malhotra (2019:437) states that when a questionnaire consists mainly of structured questions or includes only a small number of unstructured items, it is pre-coded, meaning that numerical codes are assigned to responses before data collection begins.

The self-administered questionnaire contained structured questions, which enabled the researcher to pre-code the question items before the data was collected. Table 3.1 below presents the coding information used for this study.

Table 3.-1: Coding Information

Type of data	Variable	Question number
Demographic data	A1-A8	Section A: Question A1-A8
Managerial ethical leadership	B1-B4	Section B: Question B1-B4
Caring climate	B5-B7	Section B: Question B5-B7

Employee ethical behaviour	B8-B10	Section B: Question B8-B10

3.7.4 Tabulation

Tabulation measures data by using columns and rows (Mexon & Kumar, 2020:79). In simple terms, tabulation is the process of arranging data in an orderly manner using columns and rows. . It is commonly used for realistic data and is applicable in many research fields such as medicine, finance, manufacturing, climate science and relational databases (Shwartz-Ziv & Armon, 2021:80). Tabulation can be categorised into three forms, namely one-way table, two-way table and multi-way table (Kumar, 2020:174). A one-way table occurs when the data set values are illustrated either horizontally or vertically in a list format, whereas a two-way table (also known as a contingency table or cross-tabulation) is one in which the rows are labelled with values that use one or two variables, and the columns are labelled with another value (Domingo-Ferrer *et al*., 2018:3873).

Furthermore, the intersection of cell rows and columns illustrates the characteristics of values, and this intersection is represented in the row and column headings. A multiway table is an expansion of a two-way table (Domingo-Ferrer *et al*., 2018:3873). In support, Xu et al. (2019:1) argue that tabular data is a mixture of discrete and continuous columns, and continuous columns have multiple modes, while discrete columns are imbalanced, creating difficulties in modelling. Stephan and Velmurugan (2020:122) confirm that tabulation enables the researcher to capture a large data-set, making data engaging, easy to read and coordinate and benefits in qualitative classification (displays in terms of traits such as status, nationality and social status), quantitative classification (illustrated in line with quantitative nature), and temporal classification time becomes variable and classified in time) and spatial classification (categorised in location) (Stephan & Velmurugan, 2020:122-123). One-way tabulation is instrumental in creating a one-way frequency table (Hair *et al*., 2013:255). The overall objectives include clarifying the purpose of inquiry, making the significance clear, expressing data in the most concise space, enabling comparative study, eliminating unnecessary data, and analysing the data.

3.8 STATISTICAL ANALYSIS

The Statistical Package for the Social Sciences (SPSS), Version 28.0 for Windows, and Analysis of Movement Structures (AMOS) were used for data collection, ensuring accuracy from the survey. The importance of SPSS is that it offers data collection and organisation, data output (creating output after processing), statistical techniques (selection of varies of programs), thorough data management (full control of data management and organisation), varieties of

options (creating graph, methods, charts, data scanning and cleaning strategies) and strong performance (Bhat & Tantry, 2021:26-27).

This study statistical tests used were as follows:

- Exploratory factor analysis
- Reliability and validity analysis
- Descriptive statistical analysis
- Correlation analysis
- Hypotheses testing
- Multicollinearity analysis
- Structural equation modelling
- One-way Analysis of Variance (ANOVA)

The following sections explain each of these statistical tests in detail.

3.9 EXPLORATORY FACTOR ANALYSIS

Exploratory factor analysis is an interdependence technique, and its main purpose is to establish the ranking of structure between variables (Hair *et al*., 2018:124; Thakkar, 2020:19). Exploratory factor analysis provides researchers with a managerial tool that reduces the similarities of variables within a cluster to analyse structured data (Hahs-Vaughn, 2025:494). Researchers aim to establish correlations among variables, and managing diversification becomes essential when high correlations are evident. Regrouping, labelling, and recreating group variables in accordance with the measure's variables becomes necessary (Hair *et al*., 2018:124). Exploratory factor analysis enables the simultaneous assessment of all variables while examining the underlying data structure, an indicator of construct validity, and identifying common variance (df) and removing uncommon variance (Hahs-Vaughn, 2025:495). This equates to total variance = common variance + specific variance + error variance (Hahs-Vaughn, 2025:495). Exploratory factor analysis is instrumental in the development and validation of psychological theories and measurement, where accurate and reliable methodological decisions are required (Watkins, 2018:220). In support, Hair *et al.* (2018:125) argue that exploratory factor analysis enables the independent directive (researchers) that is set to meet the study objectives. Researchers aim to

establish correlations among variables, and managing diversification becomes essential when high correlations are evident. Regrouping, labelling, and recreating group variables in accordance with the measure's variables becomes necessary (Hair *et al*., 2018:124). Exploratory factor analysis enables the simultaneous assessment of all variables while examining the underlying data structure, an indicator of construct validity, and identifying common variance (df) and removing uncommon variance (Hahs-Vaughn, 2025:495). This equates to total variance = common variance + specific variance + error variance (Hahs-Vaughn, 2025:495). Exploratory factor analysis is instrumental in the development and validation of psychological theories and measurement, where accurate and reliable methodological decisions are required (Watkins, 2018:220).

Hair *et al.* (2018:125) argue that exploratory factor analysis enables the independent directive (researchers) that is set to meet the study objectives. Researchers can use Bartlett's test of sphericity to assess the study hypothesis, which evaluates a correlation matrix that incorporates one diagonal and zeros on the off-diagonals (Watkins, 2018:226). Furthermore, the successful implementation of Bartlett's test of sphericity, which is favourable to EFA, yields a chi-square value derived from an accurate sample size, thereby avoiding large sampling errors that can lead to undetectable irregularities and affect randomness (Watkins, 2018:226). The Kaiser-Meyer-Olkin (KMO) test is another statistical tool that allows researchers to measure sample adequacy by evaluating the shared variance of variables against the totality of all observable variables, thereby addressing the limitations of correlation coefficients and ranging between 0.00 and 1.00 (Hahs-Vaughn, 2025:498). Exploratory factor analysis, which reduces and discovers new patterns among constructs, is particularly useful when multiple hypotheses have not been tested. The benefit of high flexibility provides greater accuracy in measuring the underlying construct and influence inference, highlighting the importance of exploratory factor analysis (Luo *et al*., 2019:819).

In Chapter 4, Section 4.6, exploratory factor analysis was used to identify variables that exhibited poor loadings, cross-loadings, or loaded onto unintended factors.

3.10 RELIABILITY

Reliability refers to the degree to which scale items (reliability) and constructs (composite reliability) are free from error and, therefore, yield consistent results (Mertens *et al*., 2017:50). It provides the researcher with statistical strength to investigate attitudinal randomness of hypothesis errors accumulated from participants' responses, and the captured results provide attitudinal understanding of responses that utilise different-length scales in two hypothetical scenarios that collect data periodically to gather more analysis on the subject matter (Krosnick &

Presser, 2010:272). Reliability can be tested in two stages of research: during data collection (using the same methods to ensure consistency in data collection) or during analysis (Stewart & Hitchcock, 2020:181). Furthermore, a researcher can check reliability by analysing two groups with the same set of data and the same analytical methods aimed to attain a common understanding of the collected data (Stewart & Hitchcock, 2020:181). Reliability is tested over time (test-retest reliability) and across items (internal consistency) (Yaddanapudi & Yaddanapudi, 2019:336), which are the three primary dimensions of reliability.

- **Internal consistency reliability:** This refers to the consistency of results based on multiple questions or determines the measure of a single variable (Leavy, 2017:115). Internal consistency reliability is divided into two categories, which are the split-half reliability and the Cronbach alpha coefficient. Split-half reliability evaluates the relationship between two scores and gets total scores by dividing each randomly half after the administration of the sample participants (Kumar *et al.*, 2022:39). Cronbach's alpha coefficient is determined by the internal consistency scale or the degree of agreement of the measurement values for each illustrated by a scale (Eisend & Kuss, 2019:134). The Cronbach's alpha coefficient is the most suitable technique for assessing internal reliability (Pallant, 2010:6). According to Rose et al. (2024:321), Cronbach's alpha ranges between_0 and 1; the higher the coefficient, the higher the reliability. For a study to achieve reliability, a rule of thumb came into effect: a score of 0.7 is preferable, and 0,6 also acceptable (Hair *et al.*, 2019:261-262).

- **Test-retest reliability:** This refers to the "consistency of score for stable characteristics on separate time" (Kishore *et al*., 2021:272). In simple terms, this means that using the same measurement instrument with the same sample in the same situation, but at different times. Test-retest reliability utilises the "correlation of two measurements" and assesses the observed construct that remains unchanged; however, a low correlation is not a result of unreliability but rather the change itself (Eisend & Kuss, 2019:134). This process is time-consuming but ensures a credible and reliable data set. Challenges associated with test–retest reliability include the potential for respondents to remember previous responses, the influence of situational or mood-related factors on different testing days, the possibility that repeated exposure to the survey may alter responses over time, and the difficulty some individuals may experience in responding consistently across multiple administrations (Hair e*t al* ., 2020:260).

3.11 VALIDITY

Validity is defined as the extent to which the study attributes truly measure and reflect the research data captured (Lim, 2024:158). They assess the appropriateness of the scale in measuring the construct, aligning with the study's purpose (Surucu & Maslakci, 2020:2696). One can argue that reliability and validity scales provide researchers with statistical power to test the quality of data collection, aligning with the study's primary objective. Validity has three forms namely face (content) validity, criterion-related validity and construct validity (Kumar *et al*., 2022:41).

- **Face validity:** Face validity, also referred to as content validity, is a subjective assessment that relies on the researcher's or expert reviewers' perceptions, intuition, and judgement regarding whether a measuring instrument appears to measure what it is intended to measure (Surucu & Maslakci, 2020:2706). Face validity is essential because it reflects the attitudinal and intuitive understanding acceptability of the instrument to the target population, which can significantly influence participation rates and the quality of responses (Lim, 2020:163). In support, Allen *et al*. (2023:155) emphasise that high face validity contributes to better data quality and more positive test-taker experiences. Instruments with strong face validity are perceived by participants as relevant, easy to understand, non-judgmental, and non-intrusive, reducing discomfort and encouraging honest responses (Allen *et al*., 2023:155).

- **Criterion-related validity:** Adriani *et al*. (2020:1139) state that criterion validity refers to the extent to which the scores of a scale correspond with, or accurately predict, an external criterion that represents the same construct. Criterion-related validity requires that a test demonstrates a strong empirical relationship with an external criterion that reflects the same underlying construct. A valid test should therefore show that its scores effectively predict or correspond with this criterion (Kumar *et al*., 2022:42). Furthermore, criterion validity is divided into two which includes concurrent and predictive validity (Kumar *et al*., 2022:42). Concurrent validity estimates a variable that measures the actual day-to-day behaviour while predictive validity measure future events that are yet to occur (Verma, 2024:43).

- **Construct validity:** Construct validity refers to the extent to which a measuring instrument accurately represents the theoretical construct it is intended to measure (Surucu & Maslakci, 2020:2700). Construct validity consists of two methods, which are internal and external validity (Sudaryono *et al*., 2019:3). Internal validity measures the intercorrelation among constructs within the same construct (Adriani *et al*., 2020:1139). Internal validity is measure into ways, which are factor analysis (testing the similarities, continuities or overlaps between factors by correlating factor scores with total scores) and conducting item analysis (is testing the score

of each item in question are correlated with the total score) (Sudaryono *et al*., 2019:3). External validity refers to the extent to which the findings of a study can be generalised to other people, settings, and times (Rose *et al*., 2024:108). The strength of construct validity lies in its ability to measure the sequential relationship among variables (Surucu & Maslakci, 2020:2701). There are three types of construct validity, namely convergent, discriminant and nomological validity (Kumar *et al*., 2022:43; Wang & Wang, 2019:626). Convergent validity refers to the evaluation of the interrelation among different indicators that measure the same construct (Lim, 2020:163). Convergent validity aims to link the question statements and latent variables based on loadings (Amora, 2021:1). The estimated loading of convergent validity is 0,5 or higher (Nasution *et al*., 2020:3). Discriminant validity refers to the extent to which different theoretical concepts do not correlate with the measured variable (Rose *et al*., 2024:108). Nomological validity is defined as the degree to which different theoretically constructed constructs correlate with another construct (Kock *et al*., 2023:3234). Nomological validity is an instrument to test validity and with the use of the correlation coefficient (Pearson's Product-Moment), validity is reached when significance is higher than 0,60 (Pi *et al*., 2022:4).

In this study, internal consistency reliability and both content and construct validity were assessed. Internal consistency reliability was assessed by calculating the Cronbach's alpha coefficient for each construct. Content validity was examined by having four expert researchers review the questionnaire to evaluate the adequacy and relevance of its items. Construct validity was investigated through analyses of convergent, discriminant, and nomological validity. Convergent validity was assessed by inspecting the factor loadings of the scale items, while discriminant validity was evaluated using HTMT values. Nomological validity was determined by analysing Pearson's product–moment correlation coefficients within a correlation matrix.

3.12 DESCRIPTIVE STATISTICAL ANALYSIS

Descriptive statistical analysis is the first step aimed at understanding the fundamental characteristics of data (Kishore, 2021:270). To understand the fundamental characteristics, descriptive statistics provide a summary sample of the research study centred in probability theory without any inference (Kaliyadan & Kulkarni,2019:83). Descriptive analysis allows the collected data to be represented in tables or charts and do not use narrative text which created efficiency communication descriptive (Meissel & Brown, 2023:8). To capture the quantitative data, measure of frequency (frequency and percent), measures of central tendency (mean, median and mode) and measure of dispersion or variation (variance, standard deviation, range, coefficient of variation) and measure of distribution (skewness and kurtosis) (Meissel & Brown, 2023:8).

3.12.1 Measure of frequency

The measure of frequency focuses on statistical methodology that enables researchers to reach a reliable conclusion in the study (Ginn & Cooper, 2025:377). Frequency analysis is essential in statistics, reflecting the number of occurrences (frequency) and the percentage (Mishra et al., 2019:68). Frequency refers to the number of variables that consistently occur within each category (Rose *et al*., 2024:436). Percentage refers to the fraction of the tested population sample within each category (Ginn & Cooper, 2025:377).

3.12.2 Measure of central tendency

The measure of central tendency employs a single value to represent a sample (Leavy, 2017:111). The mean is the average score in a data set and is calculated by adding all scores and dividing by the number of scores (Hinton, 2025:11). Malhotra (2020:665) argues that the arithmetic mean is typically used to measure central tendency. Medians refer to the middle value of the distribution, or the value below and above the one-half values of the sample distribution (Hair *et al*., 2020:344). To achieve this, the value must be ascended in order before the median is selected or calculated. Mode is a measure of central tendency that is measured based on the "most common" in the distributed sample (Kaliyadan & Kulkarni, 2019:84).

3.12.3 Measure of dispersion or variation

The measure of dispersion (variation) is defined as a measure that assesses the differentiation of the mean data set and aids in reliability and consistency tests (Ginn & Cooper, 2025:377). Range refers to the value differences between the smallest and largest item including distribution (Verma, 2024:97). Variance measures assess the difference score with its mean and variance is the square of the standard deviation (Hinton, 2025:14). Standard deviation is denoted with an s and standard deviation value (mean) to measures the dispersion (Mishra *et al*., 2019:68). Correlation of variation measure the degree of linear association between two interval variables, and it ranges between -1 (perfectly negatively correlation) and 1 (perfect positively correlation) (Rose *et al*., 2024:356).

3.12.4 Measure of distribution

Distribution is a graphical representation of all organised raw variables that can be paired to determine the frequency (Cooksey, 2020:8). The four essential characteristics of distribution include the mean, variability (variance or standard deviation), skewness and kurtosis (Cooksey, 2020:8). Skewness measures the movement from a symmetrical distribution (Hair *et al*., 2020:348). The left skewness (negative) means that the mode and median are lower than the

mean, while the right skewness (positive) indicates that the mode and mean are higher than the mean (McEntee, 2022:113-114). Kurtosis is a representation of outliers and identified when heavy tails (indicates high kurtosis and larger number of outliers) and light tails (indicates low kurtosis and lesser outliers) (Kaliyadan & Kulkarni, 2019:85). A normal distribution requires a mean of 0 and a standard deviation of 1 (Hinton, 2025:21). The distribution of kurtosis ranges between +1 and -1. A heavy cluster centre peaks, normal distribution is 0 (kurtosis), large positive values are too peaked and larger negative value is too flat (Hair *et al*., 2020.348).

Descriptive analysis was employed in this study to describe the nature of the data distribution, aided by measures such as the mean, standard deviation, skewness, and kurtosis.

3.13 CORRELATION ANALYSIS

Correlation coefficient analysis assesses the strength of the linear relationship and is denoted by "r" (Kumar et al., 2022, p. 225). The "r" value indicates an association of variable which can either be high or low and ranges between -1 (perfect negative correlation) and 1 (perfect positive correlation) and 0 (no association between two variable) (Hinton, 2025:183; Meissel & Brown, 2023:10; Verma, 2024:11). Pearson's Product-Moment (simple correlation coefficient) are captured in collective variables which results in correlation matrix and highlights multiple of relationships (Cooksey, 2020:150). Correlation coefficients are classified into two relational statements: an association between two concepts (influence of each concept) and causal statement where there is a "cause" (independent variable) and "effect" (dependent variable) relationship (Kapur, 2018:29). In this study, Person's Product-Moment correlations coefficient was used to measure the association between constructs and to establish whether positive, negative or no relationship exist between the constructs (Obilor & Amadi, 2018:12).

3.14 HYPOTHESES TESTING

A hypothesis is defined as the estimate or possibilities of variable relationships between variables (Hinton, 2025:3). It is developed before a research study is conducted. A researcher must use previous information to develop the hypothesis (Davidson, 2020:36). Hypothesis test is a structured method that centres in accept or reject hypotheses amongst tested relationship (Hair *et al*., 2020:153). A hypothesis consists of two statements, which are the research (alternative) hypothesis, denoted as H_1 and the null hypothesis, denoted as H_0 (Rose *et al*., 2024:345). The alternative hypothesis entails testing for a significant difference in the test relationship, while the null hypothesis highlights no significant relationship (Davis, 2020:18). The null hypothesis cannot be rejected by the researcher when 100% accuracy is demonstrated, and the researcher opts for the alternative hypothesis (Cooksey, 2025:244). A hypothesis testing process is an "integral art"

of statistical inference that requires a convenient mathematical approach to the calculation process (Verma, 2024:14), aimed at calculating significance.

The following hypotheses were developed and tested:

H_o1: Managerial ethical leadership does not have a significant direct influence on the caring climate of SMMEs.

H_a1: Managerial ethical leadership has a significant direct influence on the caring climate of SMMEs.

H_o2: Managerial ethical leadership does not have a significant direct influence on the ethical behaviour of SMME employees.

H_a2: Managerial ethical leadership has a significant direct influence on the ethical behaviour of SMME employees.

H_o3: There are no significant differences in a) managerial ethical leadership, b) caring climate and c) employees' ethical behaviour between South African SMMEs based on the businesses' years of operation.

H_a3: There are significant differences in a) managerial ethical leadership, b) caring climate and c) employees' ethical behaviour between South African SMMEs based on the businesses' years of operation.

H_o4: There is no significant difference in the ethical behaviour of employees between South African SMMEs based on their age.

H_a4: There is a significant difference in the ethical behaviour of employees between South African SMMEs based on their age.

The hypotheses in this study were formulated to examine the relationships among the variables and to determine whether significant differences exist between them. The following section explains multicollinearity analysis.

3.15 MULTICOLLINEARITY ANALYSIS

Prior to performing structural equation modelling, it is important to identify potential multicollinearity problems (Hair *et al*., 2010:633) which is done by performing collinearity diagnostics (Daoud, 2017:2). Collinearity is defined as a high degree of correlation amongst two

independent variables while multicollinearity is referred to the high degree of correlation with more than three independent variables but also with the dependent variable established in a multiple linear regression (Hair *et al*., 2019:270; Shrestha, 2020:39). Ignoring multi-collinearity can be detrimental to study findings, because despite the potential good model fit, failing to address multicollinearity can lead to incorrect interpretation of correlation coefficients, overlapping variance among variables, and impaired estimation and statistical analysis (Gwelo, 2019:80; Gokmen *et al*., 2022:474).

The most commonly used diagnostics of multi-collinearity involves assessing the tolerance and the variance inflation factor (VIF) values (Hair *et al*., 2019:312). Tolerance refers to the percentage of variance of variables which cannot be explained by other variables (Senaviratna & Cooray, 2019:3). To calculate the tolerance value requires subtracting the coefficient of determination (R^2) from one, which numerical denoted as (tolerance= 1- R^2) (Daoud, 2019:5). When tolerance values move toward the value of 1, little multicollinearity is evident, while values closer to zero (<1 - R^2), multi-collinearity is high and threating to the study findings (Senaviratna & Cooray, 2019:3). The second multicollinearity detector is the variance inflation factor (VIF) which measures the inflation of regression coefficient resulting from multi-collinearity (Kyriazos & Poga, 2023:409). The denotes equation of VIF entails that the square root indicates how much the standard error is in comparison with the uncorrelated independent variable (Sarstedt & Mooi, 2019:216). Pallant (2020:163) advises that VIF values of above 10 and tolerance values below 0.10 are indicative of serious multicollinearity concerns. This study employed a multivariate data analysis and therefore performed multicollinearity diagnostics by assessing the tolerance and variance inflation factor values. The next section discusses structural equation modelling.

3.16 STRUCTURAL EQUATION MODELLING

Structural equation modelling (SEM) is a multivariate quantitative technique that aims to explore relationships among observed variables while enabling the researcher to test, validate and extend theoretical models (Thakkar, 2020:1). Structural equation modelling is an essential statistical tool that facilitates hypothesis testing, exploring complex relationships among variables, establishes dependent relationships while simultaneously solve multiple equations (Thakkar, 2020:1). According to Bowen and Guo (2012:7) and Malhotra (2020:787), SEM entails validating the observed means, variances and covariance of a collection of variables. SEM is a powerful tool as it enables researchers to use multivariate techniques simultaneously namely factor analysis and multiple regression analysis, while accounting for measurement error (Hair *et al*., 2018:607; Malhotra, 2019 :692). As such, SEM provides a comprehensive approach as it integrates a structural model that is tested by means of path analysis and a measurement model that is tested

through confirmatory factor analysis (Hahs-Vaughn, 2025:588). Constructs refers to the unobservable or latent factors that are represented by multiple observed variables (Hair *et al*., 2018:607). To conduct SEM a sample size of 200 participants is required to ensure accuracy in data analysis (Babin & Svensson, 2012:329; Barret, 2007:820; Kline, 2011:12; Thakkar, 2020:26). However, Hair *et al*. (2014:574) argue that a sample size of 150 is sufficient when a study has seven constructs or less.

3.16.1 Measurement model specification

Structural equation modelling consists of two components namely the measurement model and structural model (Wang & Wang, 2020:2;). Measurement model specification centres on the measurement theory which shows how the constructs are represented by their observed variables (Hair *et al*., 2019:659). Furthermore, factor loadings provide numerical estimates of the strength of these relationships and assist in identifying and removing uncorrelated items that do not support the underlying theory (Hair *et al*., 2019:659).

Kline (2023:417) argues that model specification is an important step often overlooked by researchers and proposes valuable guidelines to follow with measurement model specification. First the theoretical framework should be explained, theoretical variables should be identified, and multiple indicators should be used rather than single indicators. Furthermore, a measurement error should be assigned to dependent constructs, correlated errors should be allowed when theoretically justified and potential indicator dependence should be considered. It is also important to specify the direction of relationships, justify any causal loops, and exercise caution when correlating variables.

In this study, Kline's (2023) measurement model specification guidelines were used effectively as the latent variables and observed variables were identified accurately, the relationship between these were clearly defined. In addition, each of the three constructs have multiple indicators which aimed to ensure clarity and validity of the measurement model. CFA was instrumental in evaluating the extent to which the relationships between constructs were consistent with the empirical data.

3.16.2 Assessment of measurement model fit, reliability and validity

The measurement model is tested through performing confirmatory factor analysis (CFA), which determines whether the relationships between constructs and their indicators aligns with the empirical data. Its purpose is to assess whether the model-implied covariance structure adequately reproduces the observed covariance matrix (Goretzko *et al*., 2024:125). As

recommended by Hair *et al.* (2014:576), standardised factor loadings must be greater than 0.5 to confirm that the observed indicators adequately represent their underlying latent constructs. In addition, any negative measurement error terms require careful investigation, as they signal potential issues within the model.

In addition to the internal consistency reliability assessed through Cronbach's alpha (refer to Section 3.10), it is advised to assess composite reliability as it is a substitute for Cronbach's alpha when performing structural equation modelling (Ummu *et al.*, 2020:245). High reliability reflects strong relationships among indicators, greater shared variance, and lower measurement error (Hair *et al*., 2019:786). For a measurement model to be reliable, all variables must ideally attain CR values of 0.70 or higher (Malhotra, 2020:788), although values of 0.6 are still acceptable (Hair *et al.*, 2014:619). When assessing the validity of a measurement model, both convergent and discriminant validity is assessed. Discriminant validity aims to evaluate whether constructs are conceptually distinct from one another, while convergent validity determines if a scale associate with other measures of the same construct (Hair *et al*., 2014:618). To assess the convergent validity of a measurement model, the average variance extracted (AVE) is calculated and evaluated, while the Heterotrait-Monotrait ratio of correlation (HTMT) method enables the reflective measurement of a construct's discriminant validity (Hair *et al*., 2021:76). When the HTMT values are below 0.85, discriminant validity is established (Henseler *et al*., 2015:122; Franke & Sarstedt, 2019:1), while the AVE values of the construct should exceed 0.50 to establish convergent validity (Hair *et al*., 2022).

Goodness-of-fit indices entails how well the model fits observed data and includes the goodness-of-fit index (GFI), the adjusted goodness-of-fit index (AGFI) and badness-of-fit indices that assess the errors of observable variables (Malhotra, 2020:699). The GFI values centre around 0 to 1, and a higher value indicates a better fit, where values of 0.9 equals an excellent model fit (Hair *et al*., 2018:637). Absolute fit indices test the hypothesis that the variance-covariance matrix (Σ) is equal to the sample variance-covariance matrix (S) and consist of SRMR, RMR and RMSEA (Hahs-Vaughn, 2025:600). Hahs-Vaughn (2025) explains the three fitness indices as follows: The standardized root mean square residual (SRMR) uses the residual correlation matrix to illustrate the mean difference between the observed and projected correlations. SRMR ranges from 0 (perfect fit) to +1.0. The root mean square residual (RMR) (badness-of-fit index ranging from 0 to 1.0) is the root of SRMR and the range is dependent on the scale of observed variables which create a challenge of interpretation because of covariance instead of correlation (Wang & Wang, 2019:23). Root mean square error of approximation (RMSEA) is determined by the noncentral chi-distribution which enable the degree of model misspecification to evaluate non centrality parameter (NCP). An NCP value of zero indicates perfect fit, while values greater than zero

indicate a less perfect fit. RMSEA range from zero (perfect fit) to positive 1, and values of 0.08 or below is acceptable (Byrne, 2010:77). Hair *et al*. (2019:638) provide incremental fit indices that determines the model fit centred on baseline model. These indices consist of incremental fit index (IFI), Tucker Lewis Index (TLI), normed fit index (NFI), comparative fit index (CFI) that range between 0 and 1, where (higher values indicates better fit). Parsimony fit indices are essential to assess model complexity and evaluate competing models and include the parsimony goodness-of-fit index (PGFI) and the parsimony normed fit index (PNFI) (Malhotra, 2020:700).

In this study, the reliability and validity of the measurement model was thoroughly assessed by employing various measures. In addition to the Cronbach's alpha used to assess the internal-consistency reliability, composite reliability (CR) was also evaluated. Furthermore, average variance extracted (AVE), mean inter-item correlation coefficient and corrected item-total correlation values were calculated to assess convergent validity, while the Heterotrait-Monotrait ratio of correlation (HTMT) method was used to assess discriminant validity. In addition, to assessing the measurement model fit, multiple model fit indices were assessed namely the Chi-square, incremental fit index, Tucker-Lewis index, comparative fit index, standardised root mean residual and the root mean square of approximation.

3.16.3 Structural model specification

Researchers use path diagrams to illustrate the relationships between constructs, provide conceptual clarity and establish corresponding equations for the model (Wang & Wang, 2020:3). The structural model evaluates the interrelationships among constructs through a series of equations similar to multiple regression equations, but a single variable can function as independent variable in one relationship and a dependent variable in another (Hair *et al*., 2019:764). In SEM, the independent variables are also referred to as exogenous constructs, while dependent variables are referred to as endogenous constructs (Mahapatra *et al*., 2020:18). The main purpose of path analysis is to test the direct and indirect causal relationship specified in the study's hypotheses (Thakkar, 2020:17). Furthermore, path analysis employs a mediation technique which evaluate both the direct and indirect influential relationship amongst variables (Thakkar, 2020:17). A single-headed arrow illustrates the causal effect of one variable to another, while the double-headed arrow indicates the covariance or correlation between constructs. In addition, observed variables are illustrated in boxes while latent factors are represented in circles or ovals and the relationships between are showed by arrow lines (Wang & Wang, 2020:3).

This study employed path analysis. Chapter 2 (Section 2.2) provided the theoretical framework for the empirical research outlined in Chapter 1 (Section 1.3.3) and informed the model specification. A careful analysis of the latent variables (constructs) and observed variables was

conducted to ensure alignment between the theoretical foundations of this study. This formed the basis for specifying the measurement model and illustrating the hypothesised relationships among variables.

3.16.4 Assessing structural model fit

When assessing the structural model, it is essential to examine the model fit, as well as testing the structural relationships as presented in the study's hypotheses (Malhotra *et al*., 2017:811). Structural equation modelling makes use of path analysis to conduct multiple regression procedures that investigate how exogenous variables affect other variables within the model (Stage *et al*., 2004:5). The structural model is assessed using the same criteria, statistical tests, and model fit indices that were employed for evaluating the measurement model (Malhotra, 2010:737).

In this study, the proposed model was tested and evaluated by assessing several model fit indices. Absolute badness-of-fit indices were assessed including the Chi-square, the standardise root mean residual (SRMR) and root mean square error of approximation (RMSEA). SRMR ranges from 0.00 to 1.00 where values smaller than 0.08 indicate acceptable fit, RMSEA values smaller than 0.08 indicated acceptable model fit and a chi square value of $p > 0.05$ confirms a good fit but is known to be sensitive to sample size (Thakkar, 2020:33; Hair *et al*., 2018:637). Furthermore, incremental goodness-of-fit indices were employed namely the incremental fit index (IFI), the Tucker-Lewis index (TLI) and the comparative fit index (CFI). These values range from 0.00 to 1.0. Values greater than 0.95 indicate excellent model fit and values greater than 0.90 is considered sufficient.

3.17 ANOVA

Analysis of variance (ANOVA) is a statistical technique that enables a researcher to compare the mean score of more than two groups to determine if differences exist (Hahs-Vaughn, 2025:26). This is done by partitioning the total variation in the data into components attributable to between-group and within-group differences, a process conceptually linked to regression analysis through the general linear model (GLM) framework (Hahs-Vaughn, 2025:26). Although ANOVA is an essential tool that empower researchers to test for statistically significant differences, it cannot indicate between which pair groups the significant differences are identified. This information is obtained by conducting a post hoc test, which conduct pairwise comparisons to pinpoint where the differences lie (Burns *et al*., 2017:364). ANOVA evaluates the null hypothesis that all group means are equal using the F-test statistic and the significance level (p- value). A significant F-value indicates that at least one group mean differs from the others (Burns & Veeck, 2020:367).

F-value is considered statistically significant when p< 0.001 (Shrestha, 2020:41). ANOVA can be categorised into one-way analysis of variance, which focus on the effect of one independent variable on a dependent variable and two-way analysis of variance, which enables the testing of two independent variables on one dependent variable (Pallant, 2016:143).

This study used the one-way ANOVA to determine the extent to which the mean scores among of South African SMMEs differ based on their age and their employers' years of operation.

3.18 SYNOPSIS

This chapter provided an in-depth analysis of the research methodology that was used to reach the empirical objectives of the study. The chapter first outlined the research design and approach, as well as the sampling strategy. Secondly, the data collection method, questionnaire design and questionnaire layout were discussed. Next, the chapter explained the pre-testing of the questionnaire, the administration of the questionnaire via an online (email) self-administered survey by an international research company, as well as the data preparation. The last section gave a detailed explication of the statistical analyses employed in the study, including, exploratory factor analysis, reliability, validity, descriptive statistical analysis, correlation analysis and hypotheses testing through the use of SPSS and AMOS.

The next chapter presents the study findings and follows this with an analysis and interpretation. The chapter will commence with a discussion of the results of the pre-test, followed by the data gathering process and preliminary data analysis. The sample descriptors are subsequently outlined using graphs. The chapter proceeds with the statistical analyses performed on the empirical dataset namely, exploratory factor analysis, descriptive statistical analysis, correlation analysis, discriminant validity and multi-collinearity, structural equation modelling and ANOVA.

CHAPTER 4 ANALYSIS AND INTERPRETATION OF EMPIRICAL FINDINGS

4.1 INTRODUCTION

Chapter 3 offered a detailed exposition of the research methodology that was used for the empirical portion of this study. The main objective of this chapter is to present and interpret the results of the empirical study, guided by the objectives formulated in Chapter 1. Section 4.2 discusses the results of the pre-test of the questionnaire, while Section 4.3 provides an outline of the data collection process for the main study. Section 4.4 discusses the preliminary data analysis of the results, with reference to the coding and the tabulation of the data. Section 4.5 examines the demographic information of the main sample, while Section 4.6 focuses on the exploratory factor analysis conducted on the main study. Section 4.7 examines the descriptive statistical analysis, followed by Section 4.8, which outlines the correlation analysis and provides a correlation matrix of the relationships between managerial ethical leadership, caring climate, and employee ethical behaviour. Section 4.9 addresses the discriminant validity and collinearity diagnostics, followed by Section 4.10, which outlines the hypotheses formulated for the study. Section 4.11 provides an in-depth analysis of results pertaining to the structural equation modelling performed in this study with reference to the measurement and structural models that tested hypotheses H1 and H2. Section 4.12 provides the results of the ANOVA executed in the study, which was used to test hypotheses H3 and H4.

IBM's SPSS (Version 28), AMOS and Microsoft Excel were utilised to perform the data analysis of this study. The subsequent section discusses the results of the pre-test of the study.

4.2 RESULTS OF PRE-TEST

Before finalisation, the questionnaire was pre-tested with four experienced researchers using the debriefing method to ensure clarity, validity, and an accurate representation of the study's constructs. A few minor amendments were subsequently made to improve the instrument. Firstly, the language was revised to simplify the questionnaire to avoid confusion. Secondly, unnecessary questions were removed from the questionnaire to keep in line with the scope of the study. The link to the final version of the questionnaire (main survey questionnaire) was sent to the international research company for administration to the sample in accordance with the inclusion criteria that supported the primary objective of the study. The final questionnaire (refer to Annexure A) consisted of Section A: demographic questions (eight) and Section B: 10 Likert-type

questions that tested the three constructs included this study. Table 4-1 describes the variables and factors of the final questionnaire.

Table 4.-1: Description of variables and factors

Code	Questionnaire item	Factor
MEL1	My manager is fair and makes ethical decisions.	Managerial ethical leadership
MEL2	My manager informs and discusses ethical values and conduct with employees.	
MEL3	My manager consults, guides and informs employees who violate ethical standards.	
MEL4	My manager's ethical conduct is noticeable in the workplace.	
CC1	The company's most important concern is the well-being of all employees in the company.	Caring climate
CC2	The company encourages support and care for each other in the workplace.	
CC3	The company expects all employees to produce meaningful ethical work.	
EEB1	I personally adhere to the ethical values and standards of the company.	Employee ethical behaviour
EEB2	I act ethically because I know my behaviour affects my colleagues.	
EEB3	I recognise my colleagues as human beings and care for them on a personal level.	

The data gathering process of this study is explained in detail in the next section.

4.3 DATA GATHERING PROCESS

Data collection is defined as "the process of collecting data aiming to gain insights regarding the research topic" (Taherdoost, 2021:10). This study used a user-friendly, self-administered electronic questionnaire for data collection. It was administered to 300 employees of South African SMMEs. Before the international research company administered the questionnaire, the researcher sought ethics clearance from the Faculty of Economic and Management Sciences' Research Ethics Committee at the North-West University (Ethics number: NWU 01961 23 A4) (Annexure F). The international research company distributed the link to the questionnaire on their South African SMME database for completion. Data gathering and processing took six months to complete. Once the required data had been collected, the international research company shared the survey statistics report that summarised the responses with the researcher for data analysis. In the next section, the preliminary data analysis is discussed.

4.4 PRELIMINARY DATA ANALYSIS

The preliminary data analysis consisted of coding and tabulation as discussed in detail below.

4.4.1 Coding

Coding is defined as "the process of assigning meaningful numerical values or names that reduce data from a large amount of undifferential text to a small number of relevant and representative chunks" (Hair *et al*., 2020:312). The questionnaire opened with a cover letter, followed by two screening questions to make sure that the participants met the inclusion criteria, followed by two sections. Section A requested demographic information, which consisted of eight questions, while Section B included 10 questions that related directly to the three constructs examined in this study. Table 4-2 provides the coding information and assigned values for Sections A and B of the final questionnaire.

Table 4.-2: Coding information

Section A: Demographical information			
Question	**Code**	**Variable**	**Value assigned to responses**
Question 1	A1	Mother tongue	Afrikaans (1), English (2), IsiNdebele (3), IsiXhosa (4), IsiZulu (5), Sesotho (6), Sesotho sa Leboa (7), Setswana (8), SiSwati (9), Tshivenda (10), Xitsonga (11), Other (12)
Question 2	A2	Age	18-24 (1), 25-30 (2), 31-34 (3), 35-39 (4) ,40-44 (5), 45-49 (6), 50-54 (7), 55-59 (8), 60-65 (9)
Question 3	A3	Business structure	Mirco (1), Small (2), Medium (3)
Question 4	A4	Years of business operations	0-3 (1), 4-6 (2), 7-9 (3), 10-12 (4), 13-15 (5), 15+ (6).
Question 5	A5	Gender	Female (1), Male (2), Non-binary (3)
Question 6	A6	Type of employment	Permanent (1), Part-time (2), Contract based (3)
Question 7	A7	Length of employment	<1 (1), 2-3 (2), 4-5 (3), 6-7 (4), 8< (5)
Question 8	A8	Type of industry	Agriculture (1), Mining (2), Utilities (3), Construction (4), Manufacturing (5), Wholesale (6), Retail (7), Transportation (8), Information (9), Finance (10), Real estate (11), Professional (12), Education (13), Entertainment (14), Accommodation (15), Other (16)

Section B: Ethics constructs			
Question	**Code**	**Factor**	**Value assigned to responses**
Item 1-4	Mel 1-4	Managerial ethical leadership	Strongly disagree (1), Disagree (2), Slightly disagree (3), Slightly agree (4), Agree (5), Strongly agree (6)
Item 5-7	CC 1-3	Caring climate	
Item 8-10	EEB 1-3	Employee ethical behaviour	

4.4.2 Tabulation of variables

Table 4-3 shows the frequencies of the responses obtained from the main sample for each of the questions included in Section B of the final questionnaire. The participants responded to each of the questions using a six-point Likert scale. Section B aimed to determine employees' perceptions of managerial ethical leadership and the caring climate in South African SMMEs and their perceptions on their own ethical behaviour in the workplace.

Table 4-3: Frequency table of responses

	1	**2**	**3**	**4**	**5**	**6**
Ethics constructs						
MEL1	1	10	7	24	61	53
MEL2	1	9	7	29	51	59
MEL3	1	12	4	22	50	67
MEL4	1	8	3	19	58	67
CC1	6	26	8	29	46	41
CC2	3	8	8	18	63	56
CC3	0	3	2	14	47	90
EEB1	0	1	2	12	44	97
EEB2	1	5	1	19	43	87
EEB3	0	1	0	21	41	93
1=strongly disagree, 2=slightly disagree, 3=disagree, 4=agree, 5=slightly agree, 6=strongly agree						

Section 4.5 below discusses the demographic information that were gathered during data collection.

4.5 DEMOGRAPHIC INFORMATION ANALYSIS

The demographic information analysis provides a visual representation of the participants' responses to Section A of the questionnaire. This includes a pie chart, clustered bar, waterfall and column that represent the sample profile.

4.5.1 Sample description

Three hundred questionnaires were distributed for completion and returned to the international research company. Thereafter, the data were cleaned and all the questionnaires that had been completed by managers or employees employed by businesses that do not classify as SMMEs and who thus did not meet the sample requirements, were discarded. Consequently, 144 questionnaires were discarded and 156 questionnaires were suitable for data analysis. This calculates to a 52% response rate.

Section A requested the demographic information of the participants, which included mother tongue, age of the participants, business structure, years of business operation, gender, type of employment, years of employees' employment and type of industry. Figure 4-1 displays the mother tongue.

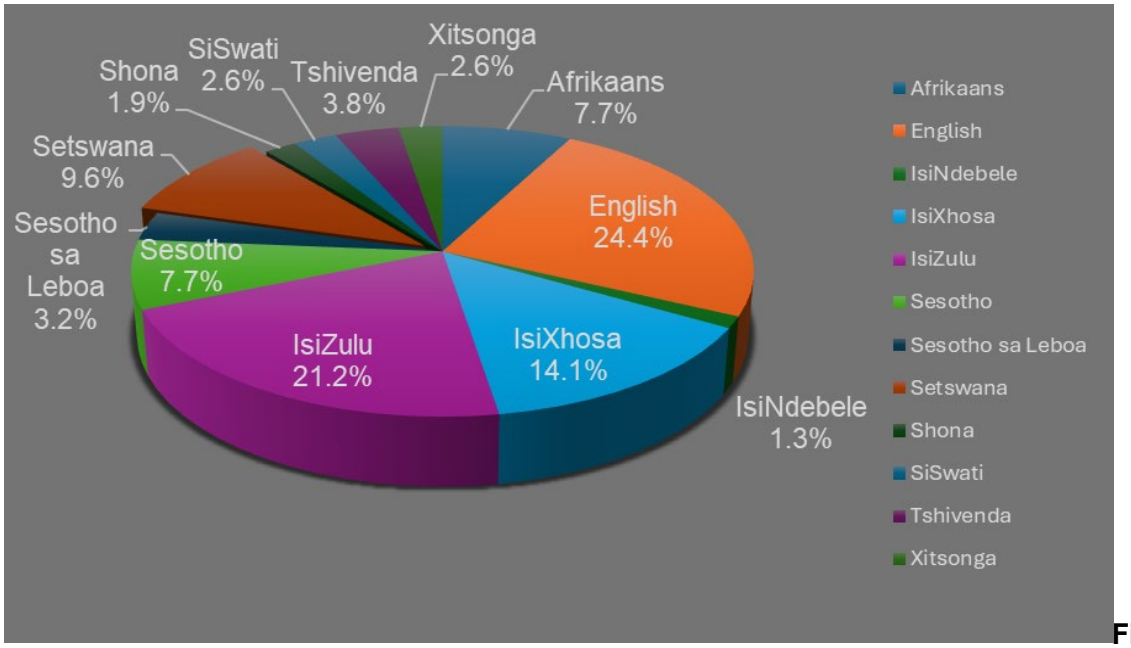


Figure 4-1: Mother tongue

Figure 4-1 shows the language distribution of the participants. Afrikaans and Sesotho both accounted for 7.7% of the sample size each, while English was the most represented by 24.4% of the sample. IsiNdebele was the least represented with 1.3%, followed by Shona with 1.9% and

then SiSwati and Xitsonga, each with 2.6%. IsiZulu was the second most represented mother tongue with 21.2%, while IsiXhosa was represented by 14.1% of the sample, Sesotho sa Leboa by 3.2% and Setswana by 9.6%. Those participants that selected the other category (3.8%) indicated Tshivenda as their mother tongue.

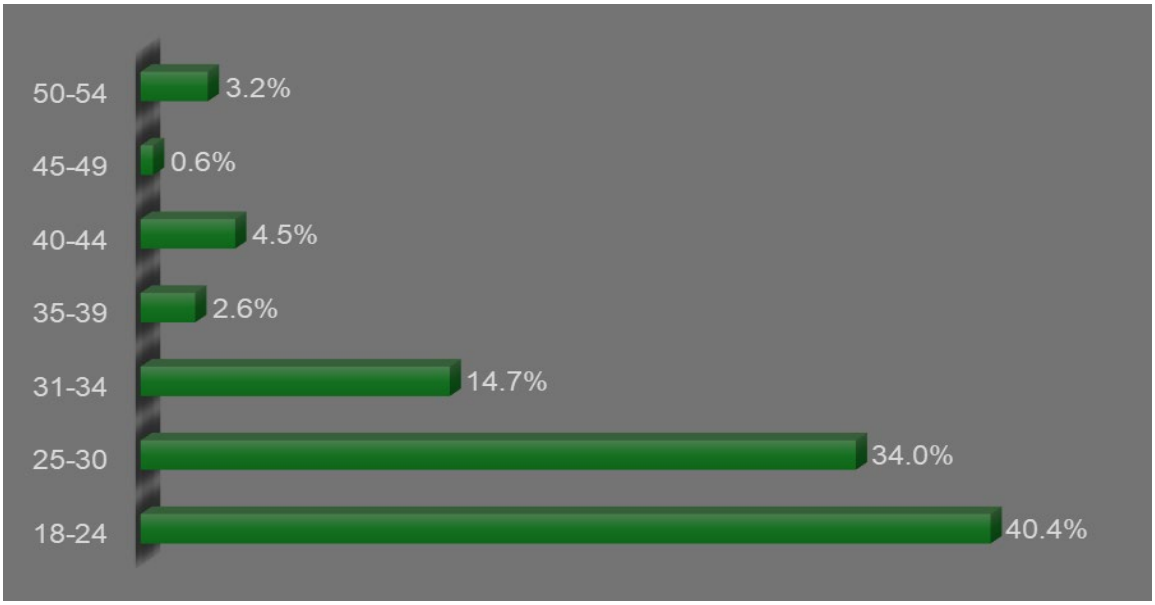


Figure 4-2: Age distribution

The age distribution is represented in Figure 4-2. The majority of the sample were aged between 18 and 24 years (40.4%), followed by those who were between 25 and 30 years of age (34%). The 31–34 years age category represented 14.7% of the sample, while the 35–39 year age category represented 2.6%. The 40–44 year age category accounted for 4.5% and the 50–54 year category for 3.2%. The 45–49 age category was least represented (0.6%).

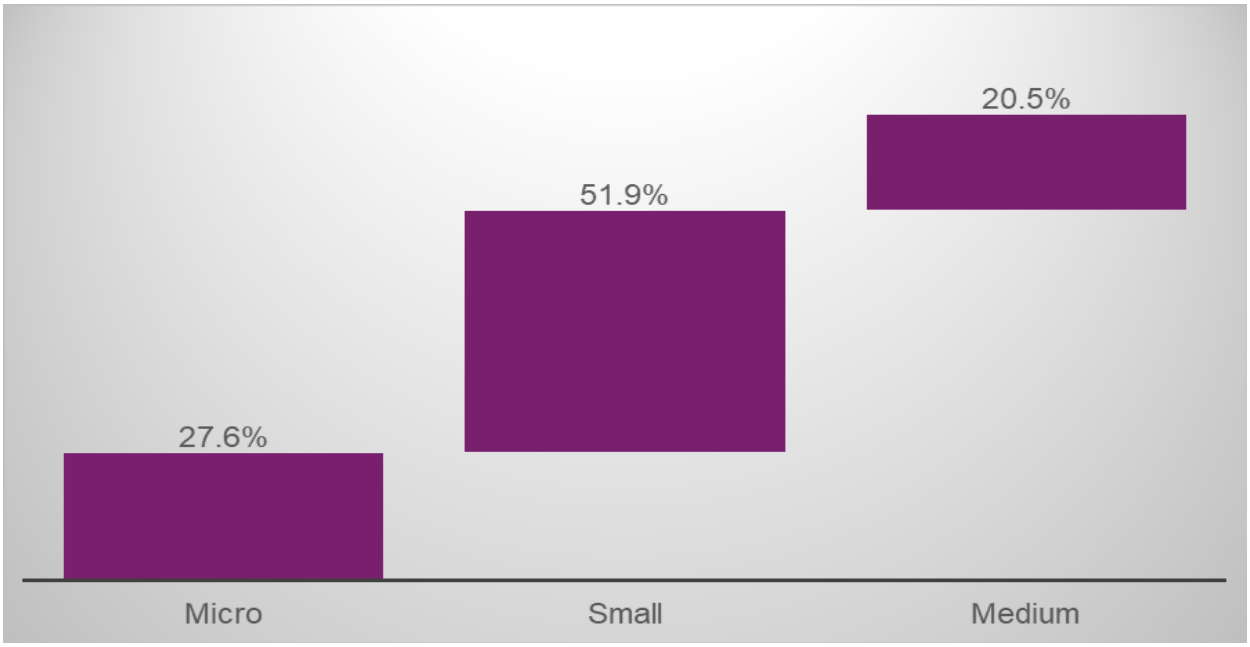


Figure 4-3: Business structure

Figure 4-3 presents the structure of the businesses where the participants are employed. The participants had to be employed in either a micro, small or medium enterprise as discussed in Chapter 2 (Section 2.2.1). The majority of the participants were employed by a small enterprise (11 to 50 employees; 51.9%), followed by those who were employed in a micro-enterprise (0–10 employees; 27.6%). The smallest portion of the sample was employed in a medium enterprise (51–250 employees; 20.5%).

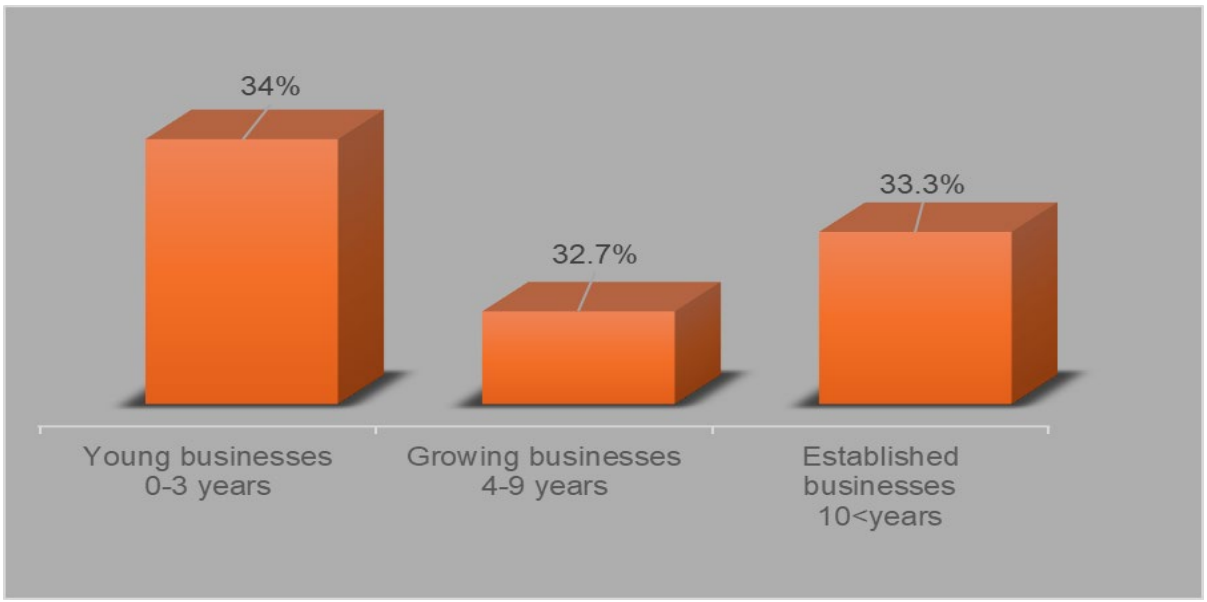


Figure 4-4: Years of business operation

Figure 4-4 illustrates the length of operation of the businesses where the participants are employed. The data obtained from question A4 in the questionnaire was re-categorised into three categories, namely young businesses (0–3 years), growing businesses (4–9 years) and established businesses (10 years or older) as discussed in Chapter 2. While the sample was relatively equally represented in terms of the years of business operations, slightly more participants were employed by young businesses (34%), followed by those employed by established businesses (33.3%), while those employed by growing businesses (32.7%) made up the smallest portion of the sample.

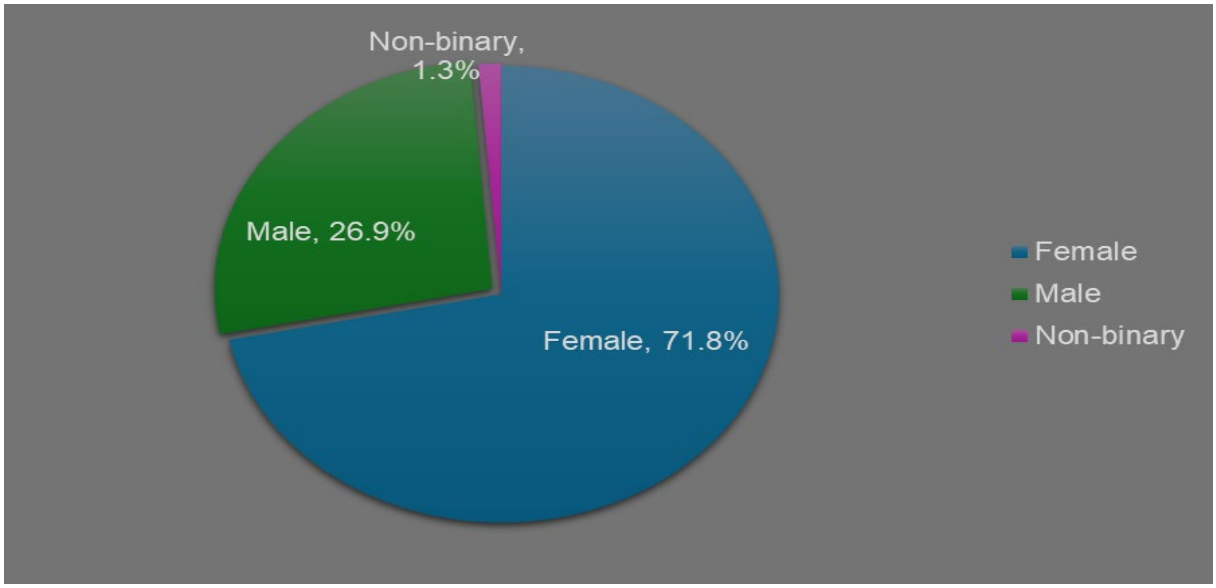


Figure 4-5: Gender

Figure 4-5 indicates the gender distribution of the participants. A significant portion of the sample was represented by female participants (71.8%), as only 26.9% of the sample were male, while 1.3% selected the non-binary option.

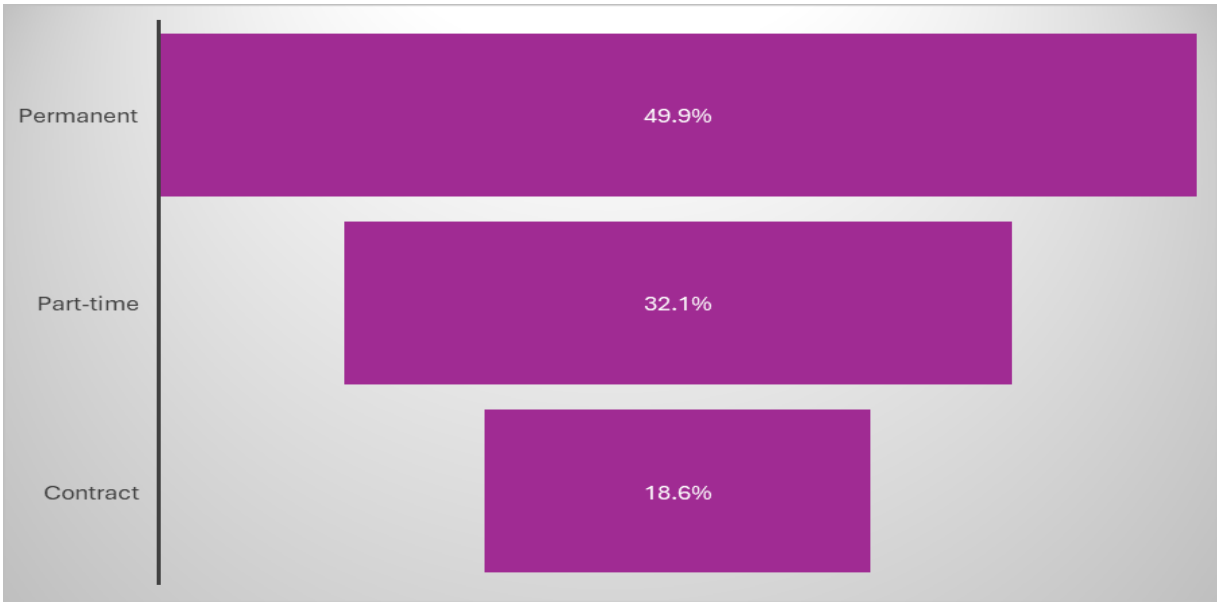


Figure 4-6: Type of employment

Figure 4-6 reveals the participants' type of employment. Almost half of the sample indicated being employed permanently (49.4%), while 32.1% of the participants were employed part-time. Those participants employed on a contract basis represented 18.6% of the sample.

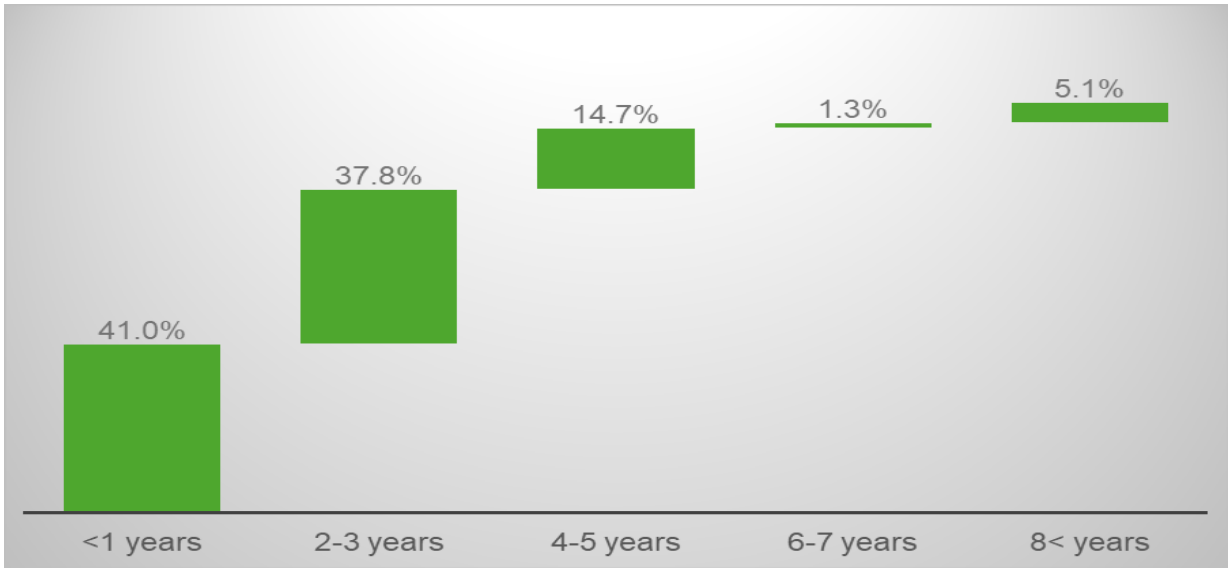


Figure 4-7: Length of employment

Figure 4-7 provides a visual representation of the participants' length of employment. The largest portion of the sample had been employed for one year or less (41%), followed by those that indicated that they had been in their current positions between two to three years (37.8%). A total of 14.7% of the sample indicated being employed by their current employers for four to five years,

followed by those had been employed for eight years or more (5.1%). Those employed for 6 to 7 years were the least represented in the sample (1.3%).

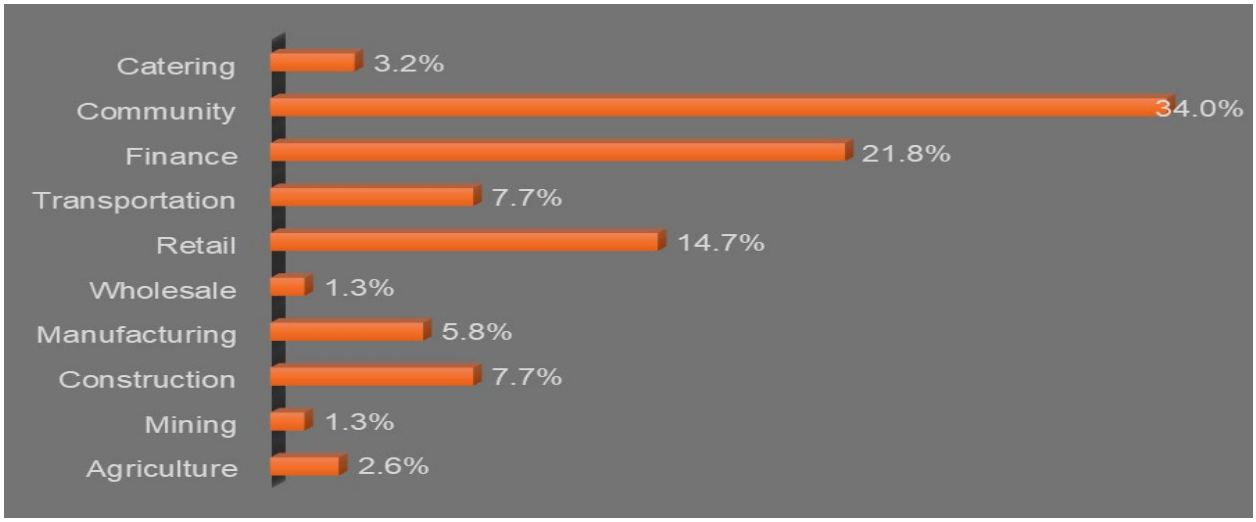


Figure 4-8: Type of industry

The type of industry in which the participants' employers trade is illustrated in Figure 4-8. The categories included in the questionnaire were restructured in accordance with the Standard Industrial Classification (Statistics South Africa, 2025) outlined in Chapter 2 (Section 2.2.1). The least represented industries were the wholesale and mining industries, each with 1.3%, followed by the agriculture industry with 2.6% and the catering industry, including accommodation, with 3.2%. Community was represented the most (34%) and typically included businesses in the professional, education and entertainment industries. The industry that ranked second in terms of sample representation was the finance industry, with 21.8%, which also included real estate, followed by the retail industry (14.7%). The construction and transportation industry, which included information, each represented 7.7% of the sample, while the manufacturing industry was represented by 5.8%.

Subsequent to the presentation and analysis of the sample's demographic information provided in Section A of the questionnaire, exploratory factor analysis was conducted on the questionnaire items included in Section B of the questionnaire.

4.6 EXPLORATORY FACTOR ANALYSIS

Exploratory factor analysis (EFA) is a multivariate statistical method used in the development and validation of measurement instruments (Watkins, 2018:219). This statical technique was employed by this study to identify the underlying latent constructs measured by the questionnaire items and to test the factor structure, guided by the theory and validated scales, within the context

of this study. The identified factor structure will be used to specify the latent constructs for the statistical analyses that follows such as, correlation analyses and structural equation modelling, in which the observed items serve as indicators of their respective latent factors. Malhotra (2019:608) argues that factor analysis is helpful in dealing with high number of variables that are correlate and provided a manageable approach that create reasonable factors. This is evident by the reduction of the indicators of all the 3 factors which supported the manageability of analysing and interpretation of SEM model of this study. Factor analysis empowered this study to investigate and get analysis in the relationship between survey items and aggregate dimensions on the survey (Knekta *et a*l., 2019:1). Managerial ethical leadership (F1), caring climate (F2) and employee ethical behaviour (F3) are formulated from a survey that represents the primary objective of this study which aligns with empirical objectives.

This study employed the Kaiser-Meyer-Olkin (KMO) measure and Barlett's test of sphericity to evaluate the sample adequacy. A significant Barlett's test and a KMO value of above 0.60 indicate suitability for factor analysis (Hair *et al*., 2019:410). Accordingly, the results met this criterion [KMO=0.843, chi-square Barlett test=498.372 (df=45), p=0.000<0.05], confirming that a principal components analysis was suitable.

The principal components analysis executed in this study used the ProMax rotation. In addition, a priori determination approach was applied, specifying the number of factors to be extracted based on guidance from the literature (Malhotra, 2020:615). Table 4-4 indicates the three extracted factors with their factor loadings, communalities, eigenvalues and percentages of variance.

Table 4-4: H Principal components analysis results

Item	1	2	3	Communalities
MEL1	0.867			0.737
MEL2	0.647	*0.268*		0.640
MEL3	0.733			0.573
MEL4	0.803			0.702
CEC1	*0.380*	0.551		0.627
CEC2		0.734		0.734
CEC3		0.814		0.675
EEB1			0.664	0.512
EEB2			0.753	0.593
EEB3		*0.363*	0.708	0.639
Eigenvalues	4.019	1.473	0.941	
% Variance	40.188	14.725	9.406	

According to the guidelines set out by Hair *et al*. (2014:115) for a sample size of 150, like in the current study, factor loadings of .45 and above are required for significance. The lower factor loadings of MEL2 (λ=0.268<0.45), CEC1 (λ=0.380<0.45) and EEB3 (λ=0.363<0.45) were below the threshold and were therefore ignored. The higher factor loadings for these three factors are all above the 0.45 threshold and were retained as they load on the intended factors in accordance with the theory. The rotated matrix presented in Table 4-4 shows the three factors that align with the proposed constructs of the 10-item scale. For the ethical scale, 64.32% of the total variance is explained. In addition, the factor loadings of all the items exceed 0.5 and thereby suggests convergent validity (Hair *et al*., 2014:618). Consequently, the factors extracted from the principal components analysis provide the empirical basis for the subsequent multivariate statistical analyses. Three factors were identified, namely managerial ethical leadership (four items), caring ethical climate (three items) and employee ethical behaviour (three items).

Following the confirmation of the proposed constructs in the 10-item scale, the next step is the calculation of the descriptive statistics for each variable.

4.7 DESCRIPTIVE STATISTICAL ANALYSIS

Descriptive statistical analyses were conducted to meet the first and second empirical objectives outlined in Chapter 1 (Section 1.4). Descriptive statistical analysis was instrumental in this study to assess and measure the central tendency, dispersion, and distribution of the scale items. The

participants' responses were measured using a six-point Likert-type scale that ranged from strongly disagree (1) to strongly agree (6). The mean value serves as an indicator of the level of disagreement (lower mean) and agreement (higher mean). Table 4-5 represents the descriptive statistical analysis of this study, of which the 'valid *N*' indicates the sample size included in the analysis.

Table 4-5: Descriptive statistical analysis

Factor	Valid *N*	Mean	Standard deviation	Skewness	Kurtosis
Managerial ethical leadership	156	4,9631	0,94092	-1,111	1,109
Caring climate	156	4,8782	0,97649	-0,991	0,857
Employee ethical behaviour	156	5,4145	0,62947	-0,829	-0,270

As indicated in Table 4-5, the mean values of all three factors are greater than four, which, given the six-point scale used, means that the participants' responses to all three factors leaned towards the agreement side of the scale. Employee ethical behaviour attained the highest mean value (mean=5.4145), followed by managerial ethical leadership (mean=4.9631), while caring climate achieved the lowest, yet high mean value (mean=4.8782). With respect to managerial ethical leadership, the mean value infers that the participants' managers are fair in decision making, informs and discusses ethics values, enforces ethics guidelines concerning ethics violations and have noticeable ethical conduct in the workplace. With regard to caring climate, the mean value suggests that the business is concerned about the well-being of its employees, cultivates a caring and supportive climate in the workplace and expects ethical business practices from employees. Lastly, the mean value for employee ethical behaviour infers that the participants adhere to the ethics values and standards of their employer, act ethically because their behaviour affects their colleagues and recognise other employees as human beings for whom they care on a personal level.

The skewness values for the three factors illustrated in Table 4-5 ranged from -0.829 to -1.111, which means that the distribution for all three factors was negatively skewed. The kurtosis values ranged from -0.270 to 1.109, which means that for managerial ethical leadership (1.109) and caring climate (0.857), the distribution was more peaked, while employee ethical behaviour (-0.270) had a flatter distribution (Malhotra *et al*., 2017:565). Given that these values fall within the range of –2 and +2 (Norman & Streiner, 2007:26), the distribution of the variables can be considered normal.

Before conducting structural equation modelling to test the significance and strength of the relationships between the latent factors specified in hypotheses H1 and H2, correlation analysis should be performed to determine whether significant relationships exist among the three factors included in this study. The correlation analysis is discussed in the next section.

4.8 CORRELATION ANALYSIS

Correlation analysis measures the strength of a relationship between two variables (Kumar *et al*., 2022:225). Pearson's Product-Moment correlation coefficient was used to measure the relationship between the three factors included in this study. The pairs of factors were also assessed to establish the nomological validity of the proposed model. Table 4-6 provides the correlation matrix of the three factors.

Table 4-6: Correlation between managerial ethical leadership, caring climate, and employee ethical behaviour

Factor	1	2
Managerial ethical leadership (F1)		
Caring climate (F2)	0.625**	
Employee ethical behaviour (F3)	0.312**	0.235**
** Correlation is significant at the 0.01 level (2-tailed)		

Table 4-6 indicates that at the significance level of $\alpha = 0.01$, the relationship between all three pairs is significant. This means that a significant positive relationship exists between managerial ethical leadership (F1) and caring climate (F2) (r=0.625), managerial ethical leadership (F1) and employee ethical behaviour (F3) (r=0.312), and caring climate (F2) and employee ethical behaviour (F3) (r=0.235). These significant relationships suggest the nomological validity of the proposed model (Malhotra, 2010:321).

The next section provides an in-depth report on the discriminant validity and multi-collinearity analyses employed in the study.

4.9 DISCRIMINANT VALIDITY AND MULTI-COLLINEARITY

Discriminant validity was measured using the Heterotrait-Monotrait ratio of correlation (HTMT) method to measure conceptual boundaries between variables (Lim, 2020:166). If the HTMT values are below the threshold of 0.85, it provides strong evidence of discriminant validity as it shows significant distinctiveness between constructs (Lim, 2024:167). Given that this study

employed multivariate statistical analyses, it is necessary to consider the multi-collinearity between the factors. Multi-collinearity was assessed by analysing the variance inflation factor (VIF) and performing a tolerance test. VIF values of above 10 and tolerance values below 0.10 are indicative of serious multicollinearity concerns (Pallant, 2020:163). Table 4-7 presents the HTMT values and collinearity diagnostics of the factors, namely tolerance and VIF values.

Table 4-7: Discriminant validity and collinearity diagnostics for managerial ethical leadership, caring climate and employee ethical behaviour

Factor	1	2	Tolerance	VIF
Managerial ethical leadership (F1)			0.581	1.721
Caring climate (F2)	0.617		0.608	1.645
Employee ethical behaviour (F3)	0.315	0.264	0.900	1.111

Table 4-7 illustrates that all HTMT values were below 0.85, and as a result, discriminant validity was attained (Lim, 2020:167). This, along with the convergent validity and the nomological validity, supports construct validity (Malhotra, 2020:305). The tolerance values range from 0.581–0.900 and are therefore above the threshold of 0.10, while the VIF values were within the range of 1.111 to 1.721, which is below the threshold of 10 and therefore shows no signs of serious multicollinearity concerns (Pallant, 2020:163).

The following section provides the hypotheses that will be tested using structural equation modelling and ANOVA analysis.

4.10 HYPOTHESES TESTING

The empirical objectives listed in Chapter 1 and the literature review in Chapter 2 served as the foundation for the formulation of the hypotheses for this study.

The significance level was set at $\alpha \leq 0.05$, where:

- If p-value > α, then conclude H_o
- If p-value ≤ α, then conclude H_a

The following hypotheses were developed for the study:

H_o1: Managerial ethical leadership does not have a significant direct influence on the caring climate of SMMEs.

H_a1: Managerial ethical leadership has a significant direct influence on the caring climate of SMMEs.

H_o2: Managerial ethical leadership does not have a significant direct influence on the ethical behaviour of SMME employees.

H_a2: Managerial ethical leadership has a significant direct influence on the ethical behaviour of SMME employees.

H_o3: There are no significant differences in a) managerial ethical leadership, b) caring climate and c) employees' ethical behaviour between South African SMMEs based on the businesses' years of operation.

H_a3: There are significant differences in a) managerial ethical leadership, b) caring climate, and c) employees' ethical behaviour between South African SMMEs based on the businesses' years of operation.

H_o4: There is no significant difference in the ethical behaviour of employees between South African SMMEs based on their age.

H_a4: There is a significant difference in the ethical behaviour of employees between South African SMMEs based on their age.

In the next section, the structural equation modelling by means of confirmatory factor analysis and path analysis is discussed to assess the study's proposed model of managerial ethical leadership's influence on caring ethical climate and employees' ethical behaviour; that is, H1 and H2. Hypotheses H3 and H4 will be tested by means of ANOVA and will be discussed in Section 4.12.

4.11 STRUCTURAL EQUATION MODELLING

This section explains the procedure followed to meet the third empirical objective set out in Chapter 1 (Section 1.4), and to test hypotheses H1 and H2. Structural equation modelling was used to test these two hypotheses as it allows for the simultaneous estimation of relationships between multiple latent constructs measured by sets of observed variables, while accounting for measurement error. The procedure followed includes the assessment of the study's measurement model reliability, validity, overall fit and the results of the path analysis conducted on the hypothesised structural model. While structural equation modelling is usually performed on sample sizes of at least 200 participants, Hair *et al*. (2014:574) propose that a sample size of 150 is sufficient when a study has seven constructs or less and modest communalities of at least 0.5. Given that this study comprises three constructs and the communalities for all construct items are above 0.5, the dataset, which includes 156 cases, is deemed sufficient for conducting structural equation modelling.

4.11.1 Specification of measurement model

The initial step in structural equation modelling involves the specification of the measurement model, followed by the execution of confirmatory factor analysis. The proposed model aligns with the theory discussed in Chapter 2 (Section 2.4.2) and hypothesises that the model is a 3-factor structure that includes the latent factors of managerial ethical leadership (F1) (four indicators), caring climate (F2) (three indicators), and employee ethical behaviour (F3) (three indicators).

Figure 4-9 represents the hypothesised measurement model

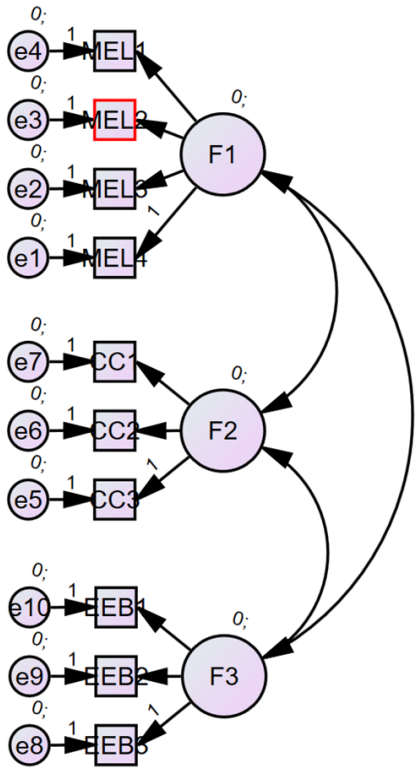


Figure 4-9: Specified measurement model

Note, for measurement, model: **F1** = Managerial ethical leadership; **F2** = Caring climate; **F3** = Employee ethical behaviour

A fixed parameter of 1 (0.1) was set for each of the first loadings of the three factors to ensure model identification (Ramlall, 2016:374). The above resulted in 65 distinct sample moments, 33 parameters to be estimated, and 32 degrees of freedom. The chi-square value of the model was 44.192, with a non-significant probability level of equal to 0.074. Table 4-8 illustrates the standardised factor loadings and error variances of the measurement model. To validate managerial ethical leadership's influence on caring climate and employees' ethical behaviour in

the South African SMMEs context, the reliability and validity were evaluated. This included the calculation of Cronbach's alpha, composite reliability (CR) and average variance extracted (AVE).

Table 4-8: Measurement Model estimates

Latent factors	Indicator	Factor loadings	Error variance	Cronbach Alpha	CR	AVE
Managerial ethical leadership (F1)	MEL 1	0.761	0.580	0.827	0.830	0.550
	MEL 2	0.733	0.537			
	MEL 3	0.680	0.463			
	MEL 4	0.788	0.621			
Caring climate (F2)	CC 1	0.760	0.578	0.713	0.744	0.500
	CC 2	0.806	0.649			
	CC 3	0.521	0.272			
Employee ethical behaviour (F3)	EEB 1	0.525	0.276	0.587	0.598	0.332
	EEB 2	0.604	0.365			
	EEB 3	0.596	0.355			

The model was examined for potential estimation issues, such as negative error variance and standardised factor loading that exceeded 1.0 or fell below –1.0. The results in Table 4-8 show no problematic estimates because the factor loadings for all three factors were above the threshold of 0.50. Furthermore, the standardised factor loadings fell within a threshold of 1.0 to –1.0 and there was no negative error variance. The reliability and validity of the model was computed and evaluated, and provided the following results: Cronbach's alpha was used to determine internal consistency reliability where values range between zero and one, and a 0.60 value is acceptable, while a 0.70 value is preferable (Hair *et al*., 2019:261-262). As presented in Table 4-8, the Cronbach's alpha values of managerial ethical leadership (α=0.827) and caring climate (α=0.713) exceeded the acceptable and preferable threshold of 0.7, establishing internal consistency reliability, while the Cronbach's alpha value for employee ethical behaviour was slightly below 0.6 (α=0.587). Similarly, the CR values of managerial ethical leadership (CR=0.830) and caring climate (CR=0.744) were above the acceptable 0.6 threshold (Malhotra, 2020:702), while employee ethical behaviour (CR=0.598) was slightly below 0.60, indicating marginal reliability. Moreover, the AVE values for caring climate and managerial ethical leadership met and exceeded the threshold of 0.50, indicating convergent validity, except for the factor of employee ethical behaviour. This factor was investigated further by calculating its mean inter-item correlation coefficient, which returned as 0.329, falling within the acceptable range of 0.15 to 0.50 (Clark & Watson, 1995). In addition, the corrected item-total correlation values ranged from 0.366

to 0.426, exceeding 0.30, suggesting that the three indicators correlate well with the employee ethical behaviour factor (Pallant, 2010). The deletion of any of the three items would lead to a lower Cronbach's alpha value for that factor. Consequently, convergent validity was tentatively concluded based on the standardised factor loading, the mean inter-item correlation coefficient, the corrected item-total correlation values, the CR values and the Cronbach's alpha values (Bevan-Dye, 2020:204).

To assess the model fit of the measurement model, the following indices were calculated using AMOS: the absolute fit indices of the chi-square, the incremental fit index (IFI), the Tucker-Lewis index (TLI), the comparative fit index CFI), the standardised root mean residual (SRMR) and the root mean square of approximation (RMSEA). Table 4-9 illustrates the results of these indices.

Table 4-9: Model fit indices for measurement model

Model fit measure	Estimate	Threshold
X^2	44.192	Low X^2 value
IFI	0.975	≥0.90
TLI	0.963	≥0.90
CFI	0.974	≥0.90
RMSEA	0.050	≤0.08
SRMR	0.0525	≤0.08

The model returned a non-significant Chi-square value (X 2 = 44.192), which showed good model-data alignment. In addition, other fit indices were assessed and also proved a satisfactory degree of consistency between the measurement model and the observed data, with IFI= 0.975, TLI= 0.963, CFI= 0.974, RMSEA= 0.050 and SRMR= 0.0525. Therefore, the measurement model illustrated both reliability and validity, and acceptable model fit, which makes it appropriate for use in path analysis. This demonstrates that the proposed model is a 3-factor structure. The next section provides an in-depth analysis of the proposed structural model.

4.11.2 Structural model

Structural equation modelling (SEM) enables researchers to investigate relationships among variables that validate the tested theory (Thakkar, 2020: VII). By performing path analysis, the path coefficients between variables are estimated and presented by single-headed arrows in a graphical model. As per the literature, a structural model was proposed and tested by performing path analysis, which hypothesises that managerial ethical leadership has a statistically significant direct influence on caring climate (H1) and employees' ethical behaviour (H2). Table 4-10 below illustrates the structural model estimates created by AMOS.

Table 4-10: Structural model estimates

Path	Standardised β	SE	*p*
Managerial ethical leadership → Caring climate	0.763	0.074	0.000*
Managerial ethical leadership → Employee ethical behaviour	0.447	0.068	0.000*
* Statistically significant at the 0.001 level (2-tailed)			

The structural model estimates presented in Table 4-10 reveal that both paths were statistically significant. As a result, the null hypotheses, H_o1 and H_o2, was rejected and the alternative hypotheses accepted. The significance indicates that managerial ethical leadership influences both caring climate ($p<0.001$) and employee ethical behaviour ($p<0.001$). The squared multiple correlation coefficients (R^2) for caring climate and employee ethical behaviour were 0.582 and 0.200, respectively. This means that the independent variable, which is managerial ethical leadership, explain 58% and 20% of the variance in caring climate and employees' ethical behaviour, respectively.

The study's proposed structural model as obtained from the path analysis is illustrated in Figure 4-10. The figure includes the path coefficients but excludes the covariance lines between the independent variables, the residuals of the dependent variables, and the indicator variables of the latent factors to enhance the visual clarity of the model. The detailed structural model is displayed in Annexure C. The same model fit indices used for assessing the measurement model was assessed for the structural model, including the chi-square, IFI, TLI, CFI, RMSEA and SRMR. Table 4.11. presents the model fit indices.

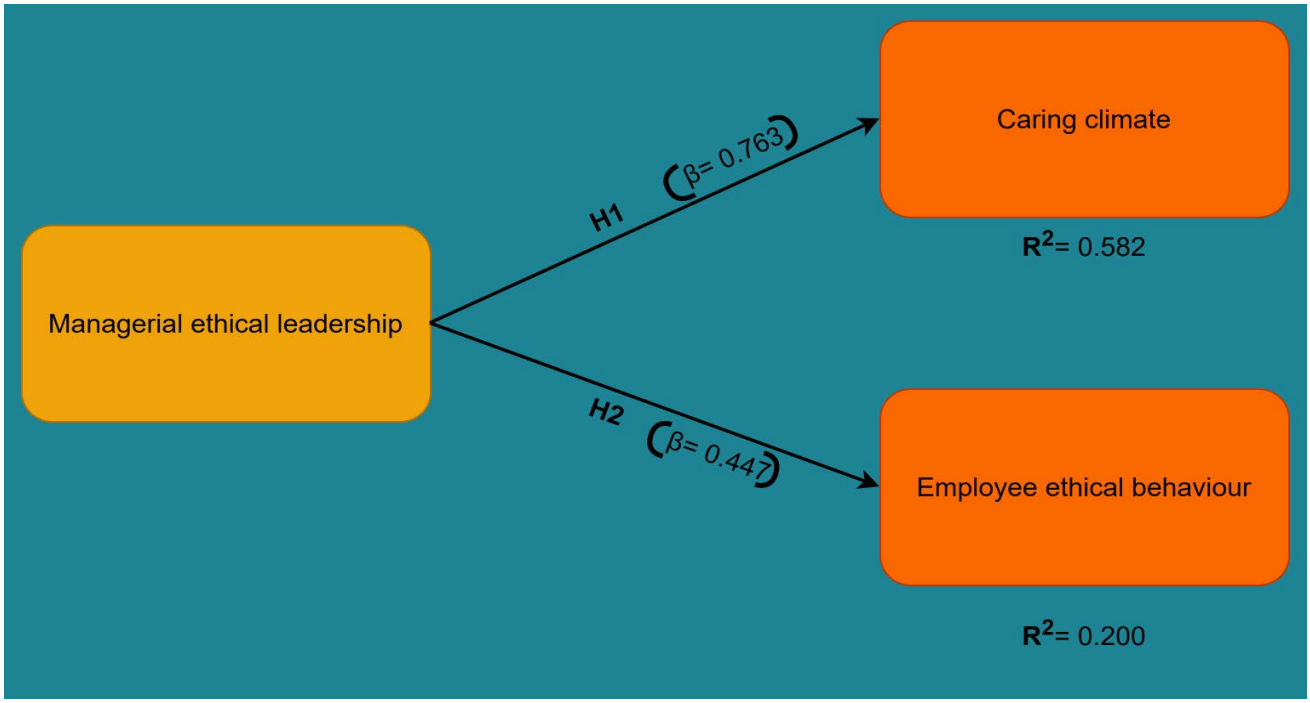


Figure 4-10: Proposed structural model

Table 4-11 Model fit indices for structural model

Model fit measure	Estimate	Threshold
X^2	44.270	Low X^2 value
IFI	0.976	≥0.90
TLI	0.967	≥0.90
CFI	0.976	≥0.90
RMSEA	0.047	≤0.08
SRMR	0.0521	≤0.08

The model fit indices for this study's structural model, as illustrated in Table 4-11, indicate that the IFI, TLI and CFI exceeded the threshold of 0.9, while the RMSEA and SRMR values fell below the threshold of 0.08. This indicates a good model fit and implies that the structural model correctly captures the underlying data structure.

4.12 ONE-WAY ANALYSIS OF VARIANCE (ANOVA)

ANOVA was conducted to test the fourth and fifth empirical objectives of this study, which refer to hypotheses H3 and H4. The extent to which the mean scores of employees of South African SMMEs differ based on their age and their employers' years of operation was investigated by conducting ANOVA. ANOVA was used, as it allows for the testing of mean differences in

continuous dependent variables across two or more predefined groups based on categorical independent variables. The ANOVA conducted for the businesses' years of operations and the employees' age are discussed separately in the following two sub-sections.

4.12.1 ANOVA and effect of businesses' years of operation on managerial ethical leadership, caring climate, and employees' ethical behaviour in South African SMMEs

The aim was to determine the differences in managerial ethical leadership, caring climate, and employees' ethical behaviour among South African SMMEs based on the businesses' years of operation (H3). The formulated hypotheses are as follows:

H_o3: There are no significant differences in a) managerial ethical leadership, b) caring climate and c) employees' ethical behaviour between South African SMMEs based on the businesses' years of operation.

H_a3: There are significant differences in a) managerial ethical leadership, b) caring climate and c) employees' ethical behaviour between South African SMMEs based on the businesses' years of operation.

Table 4-12 presents the findings regarding the statistical differences in employees' perceptions of managerial ethical leadership and the caring climate of South African SMMEs and their own ethical behaviour based on the businesses' years of operation.

Table 4-12: Effect of businesses' years of operation on managerial ethical leadership, caring climate, and employees' ethical behaviour

Factor		Sum of Squares	df	Mean Square	F-ratio	Sig
Managerial ethical leadership	Between Groups	9.211	2	4.605	5.504	0.005*
	Within Groups	128.015	153	0.837		
	Total	137.226	155			
Caring climate	Between Groups	6.003	2	3.002	3.239	0.042*
	Within Groups	141.794	153	0.927		
	Total	147.797	155			
Employee ethical behaviour	Between Groups	1.833	2	0.916	2.353	0.098
	Within Groups	59.583	153	0.389		
	Total	61.416	155			

*Statistically significant at the 0.05 level

The results presented in Table 4-12 show statistically significant differences among managerial ethical leadership ($p=0.005<0.05$) and caring climate ($p=0.042<0.05$). Consequently, H_o3a and H_o3b were rejected and H_a3a and h_a3b concluded. No statistically significant difference was found for employee ethical behaviour and therefore, H_a3c was rejected and H_o3c concluded. The statistically significant differences found in managerial ethical leadership and caring climate was investigated further by means of a Tukey HSD test to determine where specifically the variances lay.

The Tukey HSD test (Annexure D) shows that for managerial ethical leadership, statistically significant differences were found between young businesses (Group 1) and established businesses (Group 3) ($p=0.031<0.05$), as well as growing businesses (Group 2) and established businesses (Group 3) ($p=0.006<0.05$). This indicates that there are differences in the perceptions of managerial ethical leadership among employees employed in young SMMEs and established SMMEs, as well as between those employed in growing SMMEs and established SMMEs. The mean score for established businesses ($\bar{x}=4.625$) was lower than those of young ($\bar{x}=5.080$) and growing ($\bar{x}=5.186$) businesses, which means that employees in young and growing businesses have more favourable perceptions of the managerial ethical leadership in their workplace than those employees in established businesses. To determine the practical significance, the effect size was calculated using eta squared. The eta-squared value is 0.067, which indicates a medium effect (Pallant, 2016:245) and suggests a medium difference in employees' perceptions of the managerial ethical leadership in SMMEs based on the businesses' years of operation.

With regard to a caring climate, the Tukey HSD test indicates statically significant differences between growing (Group 2) and established (Group 3) businesses ($p=0.042<0.05$). This indicates that there is a difference in the employees' perceptions of the caring climate in growing SMMEs and established SMMEs. The mean score for established businesses ($\bar{x}=4.609$) was lower than for growing businesses ($\bar{x}=5.072$), which suggests that employees in growing SMMEs have more favourable perceptions of the caring climate cultivated at their workplace than employees in established businesses. This is because growing SMMEs capitalise on fewer employees, which results in "higher social connectedness" that creates a caring climate, as personal relationships with management instil a sense of belonging, loyalty and enhances productivity (Van der Linde, 2018:2). To establish the practical significance, the effect size was computed by means of the eta squared. The eta-squared value is 0.041, which indicates a small to medium effect (Pallant, 2016:245) and therefore suggests that there is a small to medium difference in employees' perceptions of the ethical climate in SMMEs based on the businesses' years of operations.

4.12.2 ANOVA and the effect of employees' age on their ethical behaviour in South African SMMEs

The objective was to establish if there are differences in employees' ethical behaviour based on their age. To enhance the clarity and interpretability of the analysis, the participants' age categories was re-categorised into four commonly defined groups, namely young adults (18–29 years), established adults (30–44 years), middle-aged adults (45–59 years) and older adults / seniors (60+ years) (Mărgărit & Stoica, 2023; Taylor, Jayasinghe & Shalley, 2025). The formulated hypotheses are as follows:

H_o4: There is no significant difference in the ethical behaviour of employees between South African SMMEs based on their age.

H_a4: There is a significant difference in the ethical behaviour of employees between South African SMMEs based on their age.

Table 4-13 illustrates the findings related to the statistically significant difference in employees' ethical behaviour based on their age.

Table 4-13: Effect of employees' age on their ethical behaviour

Factor		Sum of Squares	df	Mean Square	F-ratio	Sig
Employee ethical behaviour	Between Groups	2.533	5	1.267	3.291	0.040*
	Within Groups	58.883	153	0.385		
	Total	61.416	155			

*Statistically significant at the 0.05 level

The results in Table 4-13 shows that a statistically significant difference was found in employee ethical behaviour ($p=0.04<0.05$). As a result, H_o4 was rejected and H_a4 was supported. This statistically significant difference was investigated further by means of a Tukey HSD test to determine where specifically the variances lay.

The Tukey HSD test (Annexure E) shows that statistically significant differences in employee ethical behaviour were found between young adults (Group 1) and middle-aged adults (Group 3) ($p=0.031<0.05$), as well as early middle adults (Group 2) and middle-aged adults (Group 3) ($p=0.048<0.05$). This infers that there are differences in the ethical behaviour of young employees and middle-aged employees, as well as in early middle-aged employees and middle-aged employees. The mean score for middle-aged employees ($\bar{x}=4.778$) was lower than those of young ($\bar{x}=5.443$) and early middle-aged employees ($\bar{x}=5.431$), which infers that young and early middle-

aged employees more strongly perceive themselves as adhering to the ethical values and standards of their employer and as acting ethically at their workplace compared to middle-aged employees. This is because young employees have been shown to employ ethical judgments and have stronger ethical characteristics that enable them to make ethical decisions and normalise ethical conduct, compared to older generation (Lasthuizen & Badar, 2023:11). The younger generation seems to have a willingness to learn from managerial ethical leaders when compared to older generation (Valenti, 2019:75). Warnell (2015:17) concurs that younger employees' willingness to learn provides an ethical position that strengthens and instil ethical complexities into action-orientation, values-based contribution and leadership. Therefore, this aligns with the SLT (modelling and imitation) as reciprocation (SET) will benefit the business and the society at large. To determine the practical significance, the effect size was calculated using eta squared. The eta-squared value is 0.041, which indicates a small to medium effect (Pallant, 2016:245) and suggests that there is a small to medium difference in employees' ethical behaviour at SMMEs based on their age.

A summary of this study's findings in accordance with the empirical objectives and hypotheses is illustrated in Table 4-14 below.

Table 4-14: Summary of hypotheses and results

Number	Alternative hypothesis	Result
H_a1	Managerial ethical leadership has a significant direct influence on the caring climate of SMMEs.	Accept
H_a2	Managerial ethical leadership has a significant direct influence on the ethical behaviour of SMME employees.	Accept
H_a3a & b	There are significant differences in a) managerial ethical leadership and b) caring climate between South African SMMEs based on the businesses' years of operation.	Accept
H_a3c	There is a significant difference in employees' ethical behaviour between South African SMMEs based on the businesses' years of operation.	Reject
H_a4	There is a significant difference in the ethical behaviour of employees between South African SMMEs based on their age.	Accept

Table 4-14 shows that three out of the four hypotheses were fully supported, while one was partially supported. Chapter 5 provide an in-depth interpretation of these findings and their implications.

4.13 SYNOPSIS OF CHAPTER

In this chapter, the empirical findings of the study were reported and discussed. Section 4.2 provided the results relating to the pre-test of the study. Section 4.3 addressed the data collection process, while Section 4.4 outlined the preliminary data analysis with reference to the coding and

tabulation of the data of the main study. Section 4.5 explained the demographical information of the sample of the study. Furthermore, Section 4.6 examined the exploratory factor analysis performed in this study while Section 4.7 outlined the descriptive statistical analysis, which included the mean, standard deviation, skewness and kurtosis. Section 4.8 discussed the correlation analysis in depth, while Section 4.9 addressed the discriminant validity and collinearity diagnostics of the study. Section 4.10 outlined the hypotheses formulated for the study, which was tested through structural equation modelling in Section 4.11 and ANOVA in Section 4.12.

The subsequent chapter, Chapter 5, concludes the study by providing a summary of the study findings and addressing the empirical objectives of the study. In addition, it outlines the contributions of this study, offers recommendations, discusses the limitations and opportunities for future research and provides an overall conclusion to the study.

CHAPTER 5 RECOMMENDATIONS AND CONCLUSION

5.1 INTRODUCTION

In the contemporary business environment, a competitive advantage is key to business success (Coldwell *et al*., 2020:145). The continuous failure of leadership to adhere to the ethics standards prescribed in policies and regulation guidelines, creates a culture of unethical conduct that causes irreversible reputation damage (Aloustani *et al*., 2020:1). As argued in Chapter 2, managerial ethical leadership has a significant influence on employee ethical behaviour and a caring climate (Almeida, 2021:218). Managerial ethical leadership establishes aspirational ethical values that employees mimic that align with the SLT and SET. Therefore, it is essential that managerial leaders create a trust relationship with employees, which leads to an inclusive and caring climate (Adapa & Sheridan, 2018:XIII).

A caring climate becomes a conduit for managerial ethical leadership to encourage inclusive engagement and provides employees with equal opportunities. A caring climate provides the environment to establish close interpersonal relationships between employees and managerial leaders, in turn enhancing ethical employee behaviour and productivity (Santiago-Torner, 2023:93). A caring climate creates organisational support for addressing ethics dilemmas with confidence and it makes ethical guidance from managerial ethical leadership easily accessible (Su & Hahn, 2022:3). Therefore, employee ethical behaviour is dependent on managerial ethical leadership that demonstrates acceptable and unacceptable behaviour through the creation of a caring climate.

South African SMMEs are a driving force that ensures sustainable economic growth and provides employment for the majority of the South African population (Fatoki, 2019:62). According to Mhlongo (2021:IV), the lack of ethical leadership in South African SMMEs is a major contributor to unethical conduct in South African SMMEs. Therefore, managerial ethical leadership has become an important topic in the South African business environment (Gomeze & Stritar, 2021:158). The typical size of an SMME is an advantage, as ethical leadership can easily exert a consistent influence that supports a caring climate and employee ethical behaviour.

The conclusion of this study is structured as follows: Section 5.2 provides an overview of the study. Section 5.3 discusses the main findings, while Section 5.4 highlights the key contributions of this research. Section 5.5 offers recommendations for how managerial ethical leadership towards a caring climate and employee ethical leadership, can be instilled effectively. Section 5.6 discusses the limitations of the study and identifies possible future research opportunity, and Section 5.7 presents the concluding remarks of the study.

5.2 OVERVIEW OF THE STUDY

The primary objective of this study was to determine the influence of managerial ethical leadership on a caring climate and employee ethical behaviour at South African SMMEs. Chapter 1 introduced the study by providing background on the challenges of unethical leadership and the importance of managerial ethical leadership. In addition, this chapter highlighted the creation of a caring climate and discussed the use of ECS (Ethical Climate Scale) to assess employee behaviour in the workplace. Furthermore, the target population, namely South African SMMEs, and their characteristics were discussed. The study identified one research problem that resulted in the primary objective. From the primary objective, five theoretical objectives and five empirical objectives were formulated in Section 1.3 and Section 1.4, respectively. The hypotheses for this study were formulated in Chapter 1, Section 1.5.

Chapter 2 addressed the theoretical objectives of this study. The chapter presents a literature review that discusses two theoretical frameworks (see Section 2.3), namely the SLT, SET, as well as the three central constructs, namely managerial ethical leadership, caring climate, and employee ethical behaviour (see Section 2.4). Section 2.4.1 explained managerial ethical leadership based on Brown and Trevino's (2006) definition and the modelling role that leaders have in the workplace. Section 2.3.2 outlines caring climate in line with Victor and Cullen's (1988) definition and considers the benefits of a caring climate. Section 2.3.2 provided an in-depth discussion of employee ethical behaviour and the value of ethical conduct, which results in high productivity. The proposed research model (Figure 2.1) suggests the dependence of a caring climate and employee ethical behaviour on managerial ethical leadership. The main findings support the theories discussed in the literature review. The study highlights the independent position of managerial ethical leadership centred on social learning and social exchange relations. The role model that is visible to all creates an example of acceptable conduct and fair treatment of employees establishes reciprocation. Therefore, managerial ethical leadership becomes an instrument of reflection and self-development through visual learning.

Chapter 3 outlines the research methodology used for the empirical portion of the study. The research design was discussed in depth in Section 3.2, while Section 3.3 explained that the quantitative approach was used in this study. The sampling strategy explained in Section 3.4 provided clarity on the target population of the study, which was non-managerial employees of SMMEs, while the sampling frame was discussed in Section 3.4.2. The sampling method employed in this study, namely non-probability convenience sampling, was discussed in Section 3.4.3. The sample of 200 non-managerial employees was discussed and motivated in Section 3.4.4. A user-friendly structured self-administered questionnaire was used to capture the non-

managerial employees' responses, after ethics clearance had been obtained (Section 3.5). Before administering the questionnaire to the main sample, the questionnaire was pre-tested using the debriefing method on four experienced researchers. This was explained in Section 3.6. The questionnaire was distributed by an international research company, as explained in Section 3.7, along with the data preparation, editing, coding, and tabulation that were part of the administration of the questionnaire. Section 3.8 provided an overview of the statistical analyses employed in the study, followed by a detailed discussion on each statistical analysis conducted using SPSS and AMOS. This included exploratory factor analysis (Section 3.9), reliability (Section 3.10) and validity (Section 3.11) analysis, descriptive analysis (Section 3.12), correlation analysis (Section 3.13), hypotheses testing (Section 3.14), multi-collinearity diagnostics (Section 3.15), structural equation modelling (Section 3.16), and ANOVA (Section 3.17).

Chapter 4 presented and interpreted the results of the empirical portion of this study. With the captured data analysis, the study findings were in alignment with the empirical objectives formulated in Chapter 1.

5.3 MAIN FINDINGS OF THE STUDY

This section outlines the main findings of the study in accordance with the empirical objectives formulated in Chapter 1. The empirical objectives of this study were to:

- Determine employees' perceptions of managerial ethical leadership and the caring climate in South African SMMEs;
- Determine employees' perceptions of their own ethical behaviour in South African SMMEs;
- Determine the influence of managerial ethical leadership on a) caring climate, and b) employee ethical behaviour in South African SMMEs;
- Determine the differences in a) managerial ethical leadership, b) caring climate, and c) employees' ethical behaviour between South African SMMEs based on the businesses' years of operation; and
- Determine the difference in the ethical behaviour of employees between South African SMMEs based on their age.

The data for the study were collected by an international research company from 300 employees of South African SMMEs using a self-administered questionnaire. Once the data had been collected, the data were cleaned by removing the questionnaires completed by participants who

did not meet the sample requirements, such as managers or employees employed by businesses that do not classify as SMMEs. Consequently, 156 questionnaires were retained and suitable for data analysis. The sample's demographic information is provided in Section 4.5.1, including mother tongue, age, gender, type of employment, years of employment, the structure of the business where they are employed, years of business operation, and type of industry. The majority of the sample were English and IsiZulu-speaking and fell into the 18–24 and 25–30 years age categories. A significant portion of the sample were females, while half of the sample indicated being permanently employed for less than one year, or between two to three years. More than half of the sample was employed by a small enterprise, while the sample was split relatively equally between young, growing and established businesses, and the most frequently represented industries were the community and finance industries.

Exploratory factor analysis was conducted (refer to Section 4.6) to make sure that all the measurement items loaded under the intended factors. The results from the principal component analysis presented in Table 4-4 revealed that three items cross-loaded on more than one factor. However, the smallest factor loading for each of these three items (MEL2 $\lambda=0.268<0.45$; CEC1 $\lambda=0.380<0.45$; EEB3 $\lambda=0.363<0.45$) was below the threshold and was ignored. The highest factor loading of each of these three items that cross-loaded was above the threshold and was therefore retained. As a result, all 10 items loaded on the intended factors in accordance with the theory. Given that the factor loadings for all items, ranging from 0.551 to 0.867, were above 0.5, convergent validity was suggested.

Descriptive statistical analysis was conducted to address the first two empirical objectives of the study. The mean values presented in Table 4-5 (refer to Section 4.7) indicate that participants hold favourable perceptions of the managerial ethical leadership (mean=4.9631) and caring climate (mean=4.8782) at the SMME where they are employed, and perceive themselves as demonstrating ethical behaviour (mean=5.4145) in their workplace. More specifically, the participants perceived their managers to be fair, as individuals who communicate and discuss ethics values, enforce ethics guidelines, and demonstrate visible ethical conduct in the workplace. Furthermore, the participants are of the opinion that the business is concerned about the well-being of its employees, cultivates a caring and supportive climate in the workplace, and expects ethical business practices from employees. The participants also considered themselves to adhere to the ethics values and standards of their employer, to act ethically, and to recognise other employees as human beings for whom they care on a personal level.

Prior to establishing the direction and strength of the relationship between the factors, it was necessary to establish if significant relationships between the factors existed. Therefore,

correlation analysis (refer to Section 4.8) was conducted, followed by the assessment of discriminant validity and multi-collinearity (refer to Section 4.9). The correlation coefficients presented in Table 4-6 indicate statistically significant positive relationships between all the factors, and consequently, nomological validity was established. The Heterotrait-Monotrait Ration of correlation (HTMT) method (refer to Section 4.10) was used to assess convergent validity where all the HTMT values were below 0.85. They therefore suggest discriminant validity. The discriminant validity, nomological validity (refer to Section 4.8) and convergent validity (refer to Section 4.6) established earlier, established construct validity. Multi-collinearity was assessed by analysing the variance inflation factor (VIF) and performing a tolerance test. The results in Table 4-7 revealed VIF values ranging between 1.111 and 0.721 (VIF<10) and tolerance values ranging between 0.581 and 0.900 (tolerance values>10), indicating no serious multi-collinearity concerns.

Structural equation modelling (refer to Section 4.11) was conducted to address the third empirical objective and to test hypotheses H1 and H2. The first step in this process requires the specification, testing and evaluation of a measurement model (refer to Section 4.11.1) by performing confirmatory factor analysis. Upon assessment of the measurement model, no problematic estimates were identified (refer to Table 4-8). Internal consistency and composite reliability were established with Cronbach's alpha, while convergent validity was strengthened based on the AVE values. The low AVE value of the employee ethical behaviour factor was examined further by analysing its mean inter-item correlation coefficient and the corrected item-total correlation, which led to a tentative conclusion of convergent validity for this factor. The measurement model illustrated a good model fit (refer to Table 4-9), confirming that the proposed model is a 3-factor structure suitable for path analysis. Subsequently, a structural model was proposed (refer to Section 4.11.2) in accordance with the theory and tested using path analysis. This model hypothesises that managerial ethical leadership has a statistically significant direct influence on caring climate (H1) and employees' ethical behaviour (H2). The findings presented in Table 4-10 indicate that managerial ethical leadership significantly influences caring climate ($p<0.001$) and employee ethical behaviour ($p<0.001$). The squared multiple correlation coefficients (R2) indicate that managerial ethical leadership explain 58% of the variance in caring climate and 20% of the variance in employees' ethical behaviour. These findings align with the views of Gerpott *et al*. (2019:1066), who argue that ethical leaders discuss moral values, ethics standards, and provide ethics mentoring, which influence ethical employee behaviour. Moreover, Al Halbusi *et al*. (2019:5) argue that fairness in ethical leader behaviour builds confidence in employees of an equal approach to deal with ethics dilemmas because expected behaviour is clearly communicated.

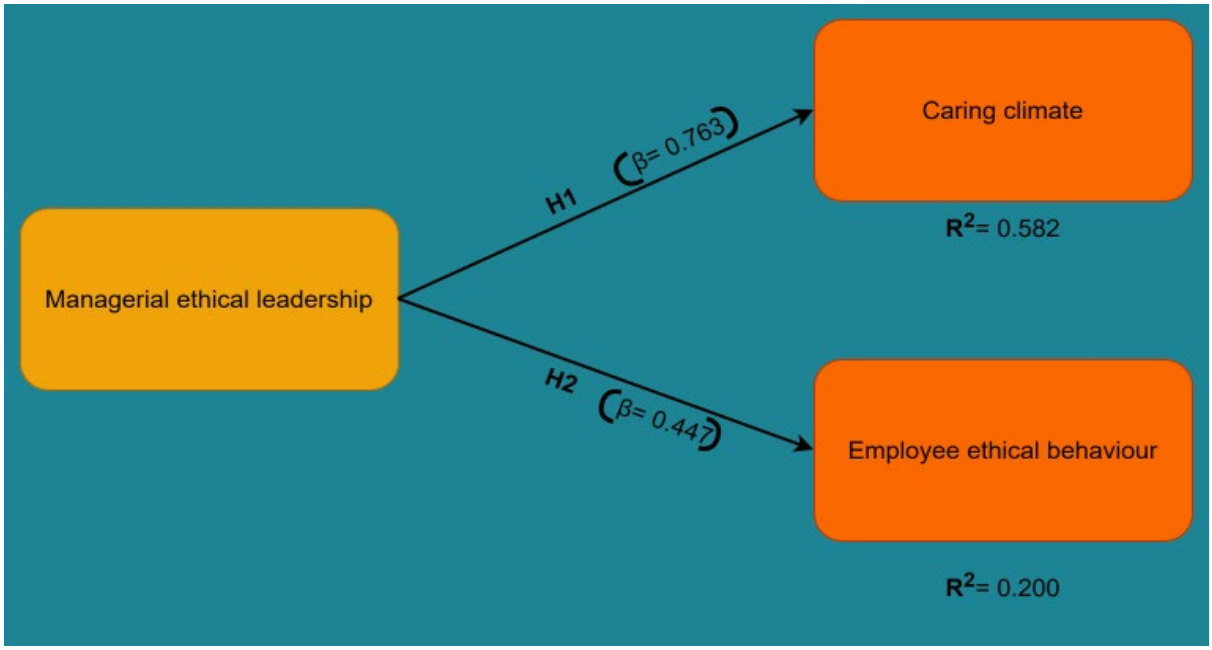


Figure 5.-1: Proposed research model

The structural model of the study demonstrated acceptable model fit. The results returned a non-significant chi-square statistic of 44.270. In addition, the Incremental Fit Index (IFI = 0.976), Tucker-Lewis Index (TLI = 0.967) and Comparative Fit Index (CFI = 0.976) exceeded the recommended value of 0.90, indicating adequate fit. The Root Mean Square Error of Approximation (RMSEA = 0.047) and the Standardised Root Mean Square Residual (SRMR = 0.0521) both fell below the threshold of 0.08, providing additional support for good model fit.

A One-way analysis of variance (ANOVA) was performed to address the fourth and fifth empirical objectives of this study and to test hypotheses H3 and H4. This analysis enabled a discovery of the extent to which the mean scores among employees of South African SMMEs differ based on their age and their employers' years of operation. With regard to H3, the results in Table 4-12 indicate that statistically significant differences were found among the mean scores of managerial ethical leadership ($p=0.005<0.05$) and caring climate ($p=0.042<0.05$) based on the businesses' years of operations, but not for employee ethical behaviour ($p=0.098>0.05$), leading to the conclusion of H_a3a and H_a3b and H_o3c. The results of the Tuckey HSD test revealed that employees in young and growing businesses have more favourable perceptions of the managerial ethical leadership at their workplace than those employees in established businesses. The eta squared value indicated a medium effect in terms of practical significance. Similarly, the Tuckey HSD test also revealed that employees in growing SMMEs have more favourable perceptions of the caring climate cultivated at their workplace than employees in established businesses. The eta squared value calculated for this finding indicated a small to medium effect in terms of practical

significance (refer to Section 4.12). In terms of H4, the results in Table 4-13 signify significant statistical differences in the ethical behaviour of employees based on their age. The Tuckey HSD test revealed that young and early middle-aged employees more strongly perceived themselves as adhering to the ethics values and standards of their employer and as acting ethically in their workplace compared to middle-aged employees. The eta squared value indicates a small to medium effect in terms of practical significance (refer to Section 4.12.2).

5.4 CONTRIBUTION OF THE STUDY

The study's main value lies in its contribution to the limited literature on the importance of managerial ethical leadership in South African SMMEs. The importance of managerial ethical leadership has been overlooked despite the fact that it is a vital tool for the long-term sustainability of business, especially SMMEs. This study examines how influential managerial ethical leadership is in developing a caring climate and ethical employee behaviour to enhance the ethical business success, sustainability, and competitiveness of an organisation by maintaining a good ethical reputation. Managerial ethical leadership plays an essential role by providing guidelines for ethical behaviour and in doing so, embedding ethics principles that develop the ethics climate of an organisation.

The guiding role of managerial ethical leaders goes beyond the written rules, regulations, and policies of the organisation. Good ethical managerial leadership represents the embodiment of those rules, regulations and guidelines, while reinforcing them with a gentle guiding hand until it becomes normative, accepted behaviour. Furthermore, good managerial ethical leadership compliments a caring climate that encourages employee engagement, moral conduct, and adherence to ethics guidelines, which in turn supports financial sustainability, organisational reputation, societal trust, and the ability to compete responsibly on the global stage.

On a practical level, this study highlights the importance of structuring SMMEs with strong managerial leadership as instrumental in developing a sustainable business. In turn, strong ethical leadership prioritises values and guidelines that complement a caring climate to enhance ethical employee behaviour. This builds a good reputation with respect to ethics that provides a competitive edge in the business environment.

Empirically, this study used a quantitative methodology to explore the influence of managerial ethical leadership on a caring climate and employee ethical behaviour in South African SMMEs. More specifically, it aimed to: (1) determine the effect of managerial ethical leadership on employee behaviour and a caring climate, (2) conduct a comparative analysis of managerial ethical leadership, caring climate, and ethical behaviour across SMMEs based on years of

operation, and (3) examined differences in ethical behaviour among employees according to age. The findings of this study provided valuable theoretical insights and practical contributions to show how managerial ethical leadership could be used to improve SMMEs' operational effectiveness, employee morale, organisational integrity, and global business reputation.

5.5 RECOMMENDATIONS

Managerial ethical leadership has a significant influence on caring climate and ethical employee behaviour. It remains important for South African SMMEs to encourage and understand the influence of managers on the creation of an ethical climate and on employee behaviour. It can either encourage ethical behaviour, adding to the sustainable development and growth of the business, or can promote unethical conduct, which can compromise the long-term success of the business.

In accordance with the findings, this subsection provides recommendations for SMMEs in South Africa to capitalise on the positive influence of managerial ethical leadership on a caring climate and employee ethical behaviour.

5.5.1 The Department of Small Business Development

The Department of Small Business Development (DSBD) should support and prioritise the sustainable and responsible growth of SMMEs in South Africa (Eke, 2024:8; Solinger, 2020:517). The sustainable and responsible growth of SMMEs should include the development of comprehensive and easily accessible programmes that equip the owners and top management of businesses with the knowledge and skills to implement managerial ethical leadership. As discussed in Chapter 2, a caring climate ensures ethical behaviour. However, managerial ethical leadership is essential for the development of a caring climate, which in turn ensures ethical employee behaviour. Therefore, training programmes and initiatives should focus on the values associated with managerial ethical leadership and how this can aid the sustainability, growth, and of a businesses. Furthermore, training programmes should emphasise the role of managerial ethical leadership as guiding and ethical example for employees, who will mimic these behaviours (Van der Linde, 2018: 39).

The DSBD could collaborate with academic institutions, private sector partners, and other relevant agencies to aid in the development and implementation of these training initiatives. These initiatives could be offered both in person or online to help eliminate possible boundaries to attending and implementing ethical leadership training. By institutionalising ethical leadership

training as part of SMME support initiatives, the DSBD could develop the foundation for responsible leadership that would create sustainable and inclusive business environments.

Additionally, the DSBD should offer training to SMMEs on adherence to the governance principles and guidelines offered in the King VI Report. These training initiatives can be tailored to the specific needs of SMMEs in South Africa. The King VI Report's principles and guidelines should be translated into easily implementable and practical actions. As discussed in Chapter 2 (Section 2.4.2), the King VI Report provides salient guidelines for promoting ethical leadership, inclusivity, and organisational integrity, all of which are essential for the development of a caring climate and managerial ethical leadership (Treviño *et al*., 2000:130-136). The principles and guidelines that are outlined in the King VI report are applicable to SMMEs as well as larger corporations and could provide salient practical guidance for a structured governance framework that would complement a caring climate and managerial ethical leadership. Workshops and other training initiatives should support business owners in understanding how a caring climate, which focuses on concern for employee well-being, transparent communication, and shared organisational values promote loyal, motivated, and ethically responsible employees (Brown & Treviño, 2006:597). Encouraging SMMEs to integrate King VI principles into their governance structures and daily operations will enhance internal organisational climate and strengthen external relationships with suppliers, customers, and local communities.

5.5.2 Promoting Managerial Ethical Leadership in SMMEs

SMME owners should take deliberate steps to align their codes of conduct, organisational policies, and core values with the principles of a caring climate. This means going beyond merely drafting ethical codes and ensuring these documents reflect fairness, respect, accountability, and empathy. Policies should clearly outline acceptable behaviours, ethical expectations, and decision-making guidelines that prioritise the well-being of employees and stakeholders.

Owners must ensure that these codes and values are not symbolic but actively influence daily operations. This may include revising disciplinary procedures, clarifying reporting channels for unethical conduct, and integrating behavioural expectations into recruitment, onboarding, and performance evaluations (Sungwa, 2025:4). When leaders consistently reinforce organisational values and they are embedded in systems, employees are more likely to internalise ethics norms and contribute to the development of a caring, responsible organisational climate.

Although owners have an influential role in the operation of a business, it is the managers that are responsible for and influential in the daily operations and daily engagement with employees. Therefore, it is the manager that becomes an influential and aspirational ethical figure on whom

employees base their behaviours and decision-making processes (Alvi *et al*., 2020:341). Thus, owners should invest in ethical leadership training for managerial staff to ensure that they understand the King VI principles, leadership values, and the values and objectives of the organisation. Furthermore, workshops and training initiatives should focus on how to successfully implement these crucial values and principles through leadership style, decision making, and interpersonal relationships.

Training initiatives should include the practical application of theoretical concepts to specifically focus on how managers can recognise ethical dilemmas, respond appropriately to employee concerns, communicate expectations clearly, and lead by example. The consistent demonstration of ethical conduct by managers becomes a reference point for employees that increases the likelihood of imitation and reciprocation of employees. Managerial ethical leadership in SMMEs, where people in leadership positions are more visible to employees, play a significant role in shaping workplace culture and the ethics climate of a business (Abalala *et al*., 2021:16).

In order to strengthen the caring climate and enhance relationship-building between employees and managers, SMME owners should consider structuring the business with multi-level managerial positions. While most SMMEs have limited managerial positions to streamline decision making, including mid-level managers or other supervisory roles would provide employees with more opportunities for mentoring, guidance and relational engagement (Al Halbusi *et al*., 2021:17). Including more managerial layers would create more points of access for employees to interact with leadership, and improved relational access would lead to more trust, open communication, inclusivity and shared accountability. More leadership positions and managerial oversight would also distribute leadership responsibilities more evenly, reducing pressure on owners and ensuring more consistent monitoring of ethical practices throughout the organisation (Han, 2023:107).

5.5.3 Creating open communication channels for employees

Effective communication is a fundamental tool to support managerial ethical leadership and to create a caring climate that is ideal for encouraging employee ethical behaviour (Kuforiji, 2024:101). Clear communication help employees internalise the values, objectives, ethical codes and procedures for ethical decision making while reducing ambiguity (Romeral *et al*., 2018:289). Employees who are confident when they face ethical dilemmas will feel more empowered in their decision making and are more likely to act responsibly and ethically (Fanse & Shirbhate, 2023:34). Thus, regular and clear communication with the support and guidance from managers should be a priority (Şeker & Karaday, 2024:109).

It is essential for SMMEs to create multiple communication platforms and channels to ensure employees understand the organisation's ethics codes, values, and procedures for ethical decision making (Watts, 2021:4). Examples of these communication platforms and channels may include written documents, posters, digital platforms, team briefings, induction sessions, and periodic refresher workshops. SMMEs should establish open and accessible communication channels that allow employees to connect with lower-level and mid-level managers for support, feedback, and ethical guidance. This should include both formal and informal channels such as suggestion boxes, anonymous reporting platforms, regular team meetings, and open-door policies (Scott, 2024:33). Managers must be trained to respond to employees respectfully and consistently to reinforce trust and reliability. These channels not only support a caring climate but also help organisations identify risks early, address grievances promptly, and reinforce ethical behaviour across all levels of the business.

5.6 LIMITATIONS AND FUTURE RESEARCH OPPORTUNITIES

The primary objective of this study was to determine the influence of managerial ethical leadership on a caring climate and employee ethical behaviour at South African SMMEs. This study encountered two limitations:

A quantitative research approach was used to measure the influence of managerial ethical leadership on a caring climate and employee ethical behaviour. This involved a systematic and empirical investigation focused on statistics, mathematics, and numerical processes (Basias & Pollalis, 2018:92). However, the quantitative approach is limited to empirical findings, which are valuable, but do not provide insight into the lived experience of employees (Taherdoost, 2022:54). Subsequently, this provides an opportunity for future research to use a qualitative methodology to gain insight into the lived experiences of employees. Given that this study employed a non-probability sampling approach, the findings cannot be fully generalised to the broader population. Although this type of sampling is often used when probability sampling is not feasible, it limits the representativeness. The results should therefore be viewed as indicative patterns and relationships within the sampled group rather than as population-level estimates.

The population and sample for this study included registered South African SMMEs and excluded unregistered SMMEs. Participants were recruited through third-party market research company and their existing consumer panel was used for sample recruitment using predefined screening criteria relevant to the study objectives. While the use of a professional panel ensured efficient access to the target population, supports data quality and response reliability, detailed information regarding panel composition and recruitment procedures was limited, and consequently, the results should be interpreted with caution. Furthermore, the exclusion of unregistered SMMEs

was a missed opportunity to evaluate their employees' perspectives on ethical leadership, the climate, and the personal ethical behaviour. From the findings, young employees perceived themselves to align more with ethical employee behaviour, while middle-aged employees did not perceive themselves to align with the values of a caring climate or ethical employee behaviour. Examining the generational differences as it pertains to the development of a caring climate, the adoption of ethical employee behaviour, and the influence of managerial ethical leadership remains a possibility for future research.

5.7 CONCLUSIONARY REMARKS

The study clearly finds that managerial ethical leadership plays a significant role in creating a caring climate and the perceived employee ethical behaviour in South African SMMEs. A comprehensive analysis of the empirical findings confirmed the reliability and validity of the measurement instrument. Structural equation modelling revealed that managerial ethical leadership exerts a significant and positive direct influence on both caring climate and employee ethical behaviour, confirming the primary objective of the study. The descriptive statistics also indicated that participants perceived high levels of managerial ethical leadership, a caring climate, and ethical employee behaviour among non-managerial employees at South African SMMEs. Therefore, these findings provide empirical support for the proposed model and highlight the influential role that managerial ethical leadership plays in responsible, ethical and sustainable business within South African SMMEs.

Furthermore, ANOVA results provided deeper insight into how organisational and personal demographics shape employee perceptions of employee ethical behaviour. Significant differences emerged in managerial ethical leadership and caring climate based on the years of business operation, suggesting that younger and growing SMMEs are more likely to create a caring climate. Moreover, employees' perceived ethical behaviour differed significantly across age groups, with younger and early middle-aged employees reporting stronger perceived employee ethical behaviour than later or middle-aged employees. These results underscore the importance of contextual factors in shaping ethical dynamics within SMMEs. Finally, the study provided recommendations to support managerial ethical leadership in South African SMMEs. These recommendations include enhancing the role of the DSBD to provide training initiatives to SMME owners on understanding and practically applying tools to ensure managerial ethical leadership, to structure SMMEs with multi-level managerial and leadership positions to provide optimal relationship formation between employees and management, and finally to create several channels of communication to inform and empower employees to make responsible and ethical decisions when faced with ethical dilemmas.

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ANNEXURE A: QUESTIONNAIRE

INFLUENCE OF MANAGERIAL ETHICAL LEADERSHIP ON CARING CLIMATE AND EMPLOYEE BEHAVIOUR IN SOUTH AFRICAN SMMES

Dear participant,

I am conducting a research project, under the supervision of Dr Danelle Fourie and Dr Rita Klonaridis as part of the requirements for completing my MCom in Business Management at the North-West University. The target population of the study is non-managerial employees employed by SMMEs. The purpose of this research project is to determine the influence of managerial ethical leadership on a caring climate and employee ethical behaviour within South African SMMEs. Your input into addressing this research project objective is valuable to determine the significance of ethical managerial leadership and its influence on a caring climate and employee behaviour.

I would truly appreciate it if you would assist me by completing the attached questionnaire. Please note that participation is completely voluntary, and you may withdraw at any time without any judgment. The questionnaire is user-friendly and will take approximately 12 minutes to complete. Confidentiality and anonymity are guaranteed, as no personal information that links you to this specific questionnaire is included (e.g. your business name, business address). The study adheres and meets the requirement of the Protection of Personal Information Act (Act 4 of 2013) (POPIA) and your non-identifiable responses will be stored in a password-protected file on Google Drive. The completed information will be reported in an aggregate form and will be used for publication purposes only and will be destroyed within five years. Demographical questions will be used for sample description purposes and for a comparative analysis on the influence of female versus male managers, the size of the industry, and the type of industry on managerial ethical leadership, the caring climate, and employee ethical behaviour.

Thank you, your assistance and contribution will be highly appreciated.

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Faculty of Economic and Management Sciences
School of Management Sciences

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North-West University (Vanderbijlpark Campus)
Faculty of Economic and Management Sciences
School of Management Sciences

I have read the above description of this research study. I have been informed that it is a low risk study that complies with the requirements of POPIA and I am aware of the purpose of the study. I voluntarily agree to take part in this study and by continuing and completing this questionnaire, I consent to the information being used in aggregate form.

Are there currently more than 250 employees employed by the business you are employed at?	YES	NO

Are you currently employed in a managerial position?	YES	NO

If you answered yes to any of the two screening questions above, please be advised that you will not be able to continue with the questionnaire. Thank you for your time and willingness to participate.

SECTION A: Demographical information
Please mark the appropriate box with a cross (X) or write down your answer.

A1.	**Please indicate your mother tongue language:**				Afrikaans
	English	IsiNdebele	IsiXhosa	IsiZulu	Sesotho
	Sesotho sa Leboa	Setswana	SiSwati	Tshivenda	Xitsonga
	Other (Please specify):				

A2.	**Age at your last birthday:**								
	18-24	25-30	31-34	35-39	40-44	45-49	50-54	55-59	60-65

A3.	**Please indicate the type of your business structure:**		
	Mirco	**Small**	**Medium**
	1-10 employees	11-50 employees	51-250 employees

A4.	**Please indicate the years of operation of the business:**					
	0-3 years	4-6 years	7-9 years	10-12 years	13 -15 years	15 years <

A5.	**Gender:**	Female	Male	Non-binary

A6.	**Please indicate the type of employment in the business that you are currently employed at:**		
	Permanent employment	Part-time employment	Contract based employment

A7.	**Please indicate how long have you been working at the business**				
	<1 year	2-3 years	4-5 years	6-7 years	8 years <

A8.	**Please indicate the industry you are currently employed in:**				
	Agriculture	Mining	Utilities	Construction	Manufacturing
	Wholesale trade	Retail trade	Transportation	Information	Finance
	Real estate	Professional	Education	Entertainment	Accommodation
	Other (Please specify):				

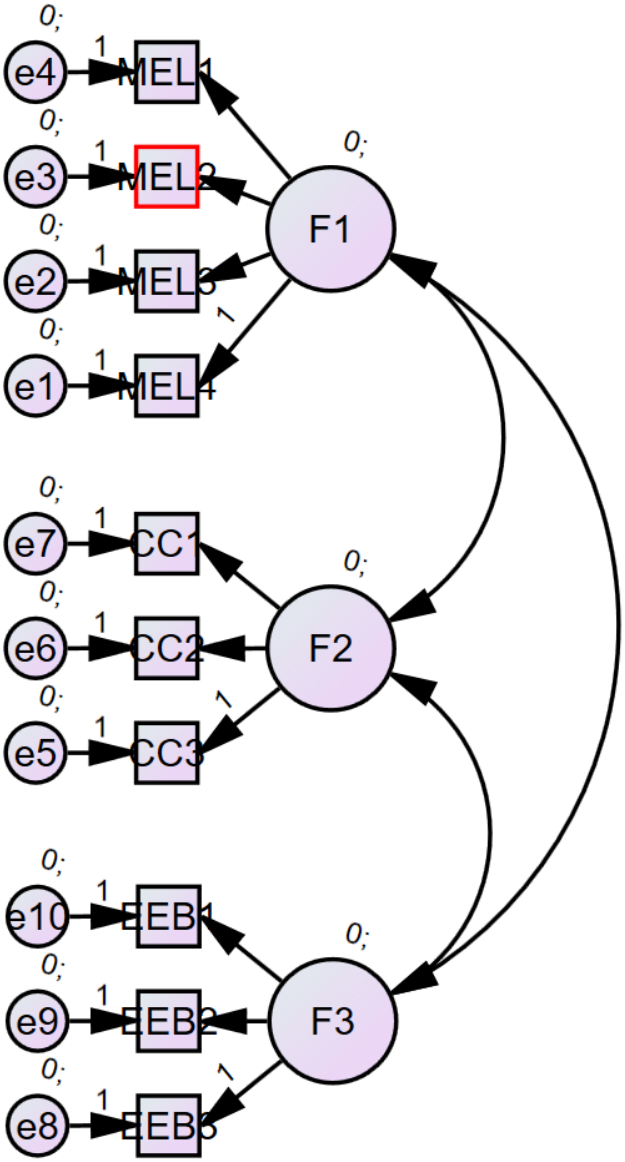
SECTION B: Ethical constructs

Please indicate the extent to which you disagree/agree with each of the following statements by placing a mark (X) in the appropriate box; 1 being strongly disagree and 6 strongly agree.

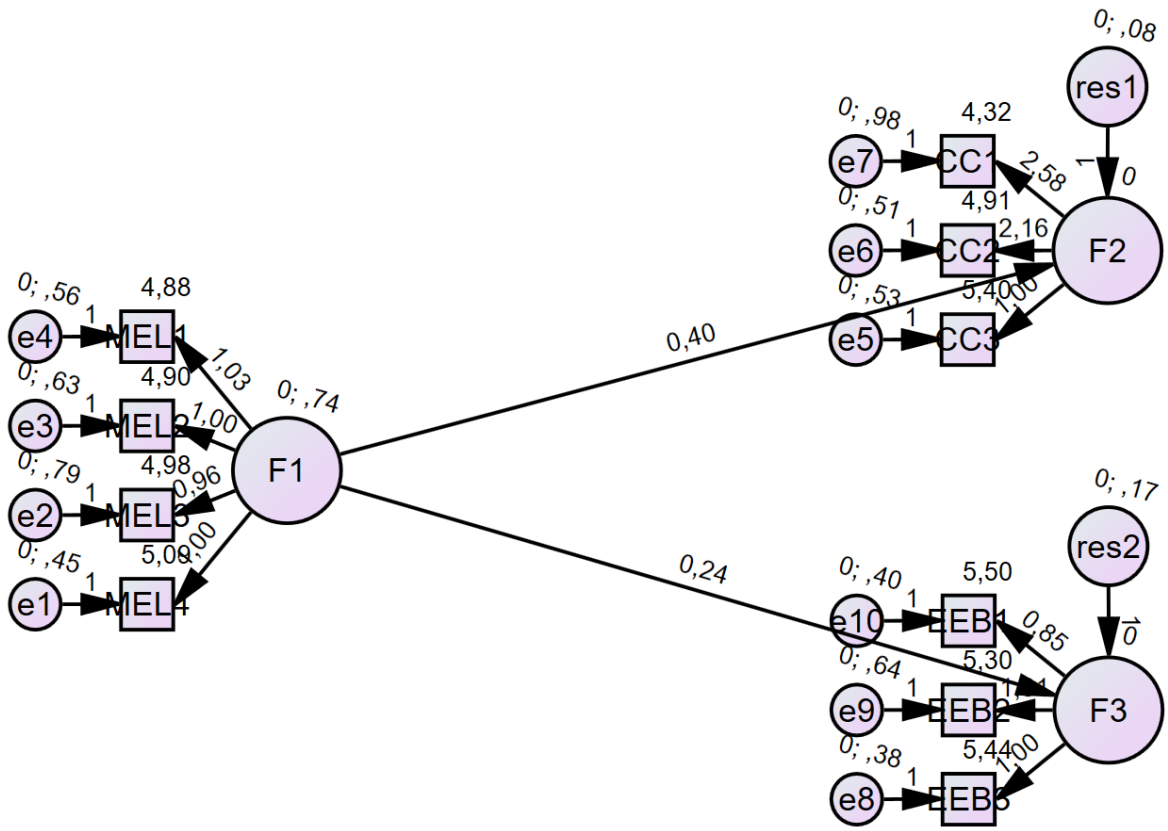
	Managerial ethical leadership	**Strongly disagree**	**Disagree**	**Slightly disagree**	**Slightly agree**	**Agree**	**Strongly agree**
B1.	My manager is fair and makes ethical decision.	1	2	3	4	5	6
B2.	My manager informs and discusses ethical values and conduct with employees.	1	2	3	4	5	6
B3.	My manager consults, guides and informs employees who violate ethical standards.	1	2	3	4	5	6
B4.	My manager's ethical conduct is noticeable in the workplace.	1	2	3	4	5	6
	Caring climate						
B5.	The company's most important concern is the well-being of all employees in the company.	1	2	3	4	5	6
B6.	The company encourages support and care for each other in the workplace.	1	2	3	4	5	6
B7.	The company expects all employees to produce meaningful ethical work.	1	2	3	4	5	6
	Employee ethical behaviour						
B8.	I personally adhere to the ethical values and standards of my company.	1	2	3	4	5	6
B9.	I act ethically because I know my behaviour affects my colleagues.	1	2	3	4	5	6
B10.	I recognise my colleagues as human beings and care for them on a personal level.	1	2	3	4	5	6

Thank you.

ANNEXURE B: MEASUREMENT MODEL



ANNEXURE C: STRUCTURAL MODEL



ANNEXURE D: ANOVA YEARS OF OPERATIONS

Oneway

Notes

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Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics for each analysis are based on cases with no missing data for any variable in the analysis.
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	Elapsed Time	00:00:00,02

Descriptives

		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean	
						Lower Bound	Upper Bound
MEL	1,00	53	5,0802	,79023	,10855	4,8624	5,2980
	2,00	51	5,1863	,81370	,11394	4,9574	5,4151
	3,00	52	4,6250	1,10646	,15344	4,3170	4,9330
	Total	156	4,9631	,94092	,07533	4,8143	5,1120
CC	1,00	53	4,9560	,81921	,11253	4,7302	5,1818
	2,00	51	5,0719	,85716	,12003	4,8308	5,3130
	3,00	52	4,6090	1,17290	,16265	4,2824	4,9355
	Total	156	4,8782	,97649	,07818	4,7238	5,0326
EEB	1,00	53	5,4717	,57895	,07953	5,3121	5,6313
	2,00	51	5,5098	,56707	,07941	5,3503	5,6693
	3,00	52	5,2628	,71503	,09916	5,0638	5,4619
	Total	156	5,4145	,62947	,05040	5,3150	5,5141

Descriptives

		Minimum	Maximum
MEL	1,00	2,25	6,00
	2,00	2,75	6,00
	3,00	1,50	6,00
	Total	1,50	6,00
CC	1,00	3,00	6,00
	2,00	2,67	6,00
	3,00	1,67	6,00
	Total	1,67	6,00
EEB	1,00	4,33	6,00
	2,00	4,00	6,00
	3,00	3,67	6,00
	Total	3,67	6,00

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
MEL	Between Groups	9,211	2	4,605	5,504	,005
	Within Groups	128,015	153	,837		
	Total	137,226	155			
CC	Between Groups	6,003	2	3,002	3,239	,042
	Within Groups	141,794	153	,927		
	Total	147,797	155			
EEB	Between Groups	1,833	2	,916	2,353	,098
	Within Groups	59,583	153	,389		
	Total	61,416	155			

ANOVA Effect Sizes[a,b]

			Point Estimate	95% Confidence Interval Lower	Upper
MEL	Eta-squared		,067	,007	,147
	Epsilon-squared		,055	-,006	,136
	Omega-squared	Fixed-effect	,055	-,006	,135
	Omega-squared	Random-effect	,028	-,003	,073
CC	Eta-squared		,041	,000	,109
	Epsilon-squared		,028	-,013	,098
	Omega-squared	Fixed-effect	,028	-,013	,097
	Omega-squared	Random-effect	,014	-,006	,051
EEB	Eta-squared		,030	,000	,092
	Epsilon-squared		,017	-,013	,080
	Omega-squared	Fixed-effect	,017	-,013	,079
	Omega-squared	Random-effect	,009	-,006	,041

a. Eta-squared and Epsilon-squared are estimated based on the fixed-effect model.

b. Negative but less biased estimates are retained, not rounded to zero.

Post Hoc Tests

Multiple Comparisons

Tukey HSD

Dependent Variable	(I) Yearsofop	(J) Yearsofop	Mean Difference (I-J)	Std. Error
MEL	1,00	2,00	-,10609	,17942
		3,00	,45519*	,17854
	2,00	1,00	,10609	,17942
		3,00	,56127*	,18027
	3,00	1,00	-,45519*	,17854
		2,00	-,56127*	,18027
CC	1,00	2,00	-,11592	,18883
		3,00	,34700	,18790
	2,00	1,00	,11592	,18883
		3,00	,46292*	,18972
	3,00	1,00	-,34700	,18790
		2,00	-,46292*	,18972
EEB	1,00	2,00	-,03811	,12241
		3,00	,20888	,12181
	2,00	1,00	,03811	,12241
		3,00	,24698	,12298
	3,00	1,00	-,20888	,12181
		2,00	-,24698	,12298

Multiple Comparisons

Tukey HSD

Dependent Variable	(I) Yearsofop	(J) Yearsofop	Sig.	95% Confidence Interval Lower Bound
MEL	1,00	2,00	,825	-,5307
		3,00	,031	,0326
	2,00	1,00	,825	-,3186
		3,00	,006	,1346
	3,00	1,00	,031	-,8778
		2,00	,006	-,9879
CC	1,00	2,00	,813	-,5628
		3,00	,158	-,0977
	2,00	1,00	,813	-,3310
		3,00	,042	,0139
	3,00	1,00	,158	-,7917
		2,00	,042	-,9119
EEB	1,00	2,00	,948	-,3278
		3,00	,203	-,0794
	2,00	1,00	,948	-,2516
		3,00	,114	-,0441
	3,00	1,00	,203	-,4972
		2,00	,114	-,5381

Multiple Comparisons

Tukey HSD

Dependent Variable	(I) Yearsofop	(J) Yearsofop	95% Confidence Interval Upper Bound
MEL	1,00	2,00	,3186
		3,00	,8778
	2,00	1,00	,5307
		3,00	,9879
	3,00	1,00	-,0326
		2,00	-,1346
CC	1,00	2,00	,3310
		3,00	,7917
	2,00	1,00	,5628
		3,00	,9119
	3,00	1,00	,0977
		2,00	-,0139
EEB	1,00	2,00	,2516
		3,00	,4972
	2,00	1,00	,3278
		3,00	,5381
	3,00	1,00	,0794
		2,00	,0441

*. The mean difference is significant at the 0.05 level.

Homogeneous Subsets

MEL

Tukey HSD[a,b]

Yearsofop	N	Subset for alpha = 0.05	
		1	2
3,00	52	4,6250	
1,00	53		5,0802
2,00	51		5,1863
Sig.		1,000	,825

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 51,987.

b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

CC

Tukey HSD[a,b]

Yearsofop	N	Subset for alpha = 0.05	
		1	2
3,00	52	4,6090	
1,00	53	4,9560	4,9560
2,00	51		5,0719
Sig.		,161	,813

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 51,987.

b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

EEB

Tukey HSD[a,b]

Yearsofop	N	Subset for alpha = 0.05 1
3,00	52	5,2628
1,00	53	5,4717
2,00	51	5,5098
Sig.		,111

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 51,987.

b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

ANNEXURE E: ANOVA AGE

Oneway

Notes

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Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics for each analysis are based on cases with no missing data for any variable in the analysis.
Syntax		ONEWAY MEL CC EEB BY Yearsofop /ES=OVERALL /STATISTICS DESCRIPTIVES /MISSING ANALYSIS /CRITERIA=CILEVEL(0.95) /POSTHOC=TUKEY ALPHA(0.05).
Resources	Processor Time	00:00:00,02
	Elapsed Time	00:00:00,02

Descriptives

		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean	
						Lower Bound	Upper Bound
MEL	1,00	53	5,0802	,79023	,10855	4,8624	5,2980
	2,00	51	5,1863	,81370	,11394	4,9574	5,4151
	3,00	52	4,6250	1,10646	,15344	4,3170	4,9330
	Total	156	4,9631	,94092	,07533	4,8143	5,1120
CC	1,00	53	4,9560	,81921	,11253	4,7302	5,1818
	2,00	51	5,0719	,85716	,12003	4,8308	5,3130
	3,00	52	4,6090	1,17290	,16265	4,2824	4,9355
	Total	156	4,8782	,97649	,07818	4,7238	5,0326
EEB	1,00	53	5,4717	,57895	,07953	5,3121	5,6313
	2,00	51	5,5098	,56707	,07941	5,3503	5,6693
	3,00	52	5,2628	,71503	,09916	5,0638	5,4619
	Total	156	5,4145	,62947	,05040	5,3150	5,5141

Descriptives

		Minimum	Maximum
MEL	1,00	2,25	6,00
	2,00	2,75	6,00
	3,00	1,50	6,00
	Total	1,50	6,00
CC	1,00	3,00	6,00
	2,00	2,67	6,00
	3,00	1,67	6,00
	Total	1,67	6,00
EEB	1,00	4,33	6,00
	2,00	4,00	6,00
	3,00	3,67	6,00
	Total	3,67	6,00

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
MEL	Between Groups	9,211	2	4,605	5,504	,005
	Within Groups	128,015	153	,837		
	Total	137,226	155			
CC	Between Groups	6,003	2	3,002	3,239	,042
	Within Groups	141,794	153	,927		
	Total	147,797	155			
EEB	Between Groups	1,833	2	,916	2,353	,098
	Within Groups	59,583	153	,389		
	Total	61,416	155			

ANOVA Effect Sizes[a,b]

			95% Confidence Interval	
		Point Estimate	Lower	Upper
MEL	Eta-squared	,067	,007	,147
	Epsilon-squared	,055	-,006	,136
	Omega-squared Fixed-effect	,055	-,006	,135
	Omega-squared Random-effect	,028	-,003	,073
CC	Eta-squared	,041	,000	,109
	Epsilon-squared	,028	-,013	,098
	Omega-squared Fixed-effect	,028	-,013	,097
	Omega-squared Random-effect	,014	-,006	,051
EEB	Eta-squared	,030	,000	,092
	Epsilon-squared	,017	-,013	,080
	Omega-squared Fixed-effect	,017	-,013	,079
	Omega-squared Random-effect	,009	-,006	,041

a. Eta-squared and Epsilon-squared are estimated based on the fixed-effect model.

b. Negative but less biased estimates are retained, not rounded to zero.

Post Hoc Tests

Multiple Comparisons

Tukey HSD

Dependent Variable	(I) Yearsofop	(J) Yearsofop	Mean Difference (I-J)	Std. Error
MEL	1,00	2,00	-,10609	,17942
		3,00	,45519*	,17854
	2,00	1,00	,10609	,17942
		3,00	,56127*	,18027
	3,00	1,00	-,45519*	,17854
		2,00	-,56127*	,18027
CC	1,00	2,00	-,11592	,18883
		3,00	,34700	,18790
	2,00	1,00	,11592	,18883
		3,00	,46292*	,18972
	3,00	1,00	-,34700	,18790
		2,00	-,46292*	,18972
EEB	1,00	2,00	-,03811	,12241
		3,00	,20888	,12181
	2,00	1,00	,03811	,12241
		3,00	,24698	,12298
	3,00	1,00	-,20888	,12181
		2,00	-,24698	,12298

Multiple Comparisons

Tukey HSD

Dependent Variable	(I) Yearsofop	(J) Yearsofop	Sig.	95% Confidence Interval Lower Bound
MEL	1,00	2,00	,825	-,5307
		3,00	,031	,0326
	2,00	1,00	,825	-,3186
		3,00	,006	,1346
	3,00	1,00	,031	-,8778
		2,00	,006	-,9879
CC	1,00	2,00	,813	-,5628
		3,00	,158	-,0977
	2,00	1,00	,813	-,3310
		3,00	,042	,0139
	3,00	1,00	,158	-,7917
		2,00	,042	-,9119
EEB	1,00	2,00	,948	-,3278
		3,00	,203	-,0794
	2,00	1,00	,948	-,2516
		3,00	,114	-,0441
	3,00	1,00	,203	-,4972
		2,00	,114	-,5381

Multiple Comparisons

Tukey HSD

Dependent Variable	(I) Yearsofop	(J) Yearsofop	95% Confidence Interval Upper Bound
MEL	1,00	2,00	,3186
		3,00	,8778
	2,00	1,00	,5307
		3,00	,9879
	3,00	1,00	-,0326
		2,00	-,1346
CC	1,00	2,00	,3310
		3,00	,7917
	2,00	1,00	,5628
		3,00	,9119
	3,00	1,00	,0977
		2,00	-,0139
EEB	1,00	2,00	,2516
		3,00	,4972
	2,00	1,00	,3278
		3,00	,5381
	3,00	1,00	,0794
		2,00	,0441

*. The mean difference is significant at the 0.05 level

Homogeneous Subsets

MEL

Tukey HSD[a,b]

Yearsofop	N	Subset for alpha = 0.05	
		1	2
3,00	52	4,6250	
1,00	53		5,0802
2,00	51		5,1863
Sig.		1,000	,825

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 51,987.

b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

CC

Tukey HSD[a,b]

Yearsofop	N	Subset for alpha = 0.05	
		1	2
3,00	52	4,6090	
1,00	53	4,9560	4,9560
2,00	51		5,0719
Sig.		,161	,813

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 51,987.

b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

EEB

Tukey HSD[a,b]

Yearsofop	N	Subset for alpha = 0.05 1
3,00	52	5,2628
1,00	53	5,4717
2,00	51	5,5098
Sig.		,111

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 51,987.

b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

ANNEXURE F: ETHICS APPROVAL LETTER

Private Bag X1290, Potchefstroom
South Africa 2520

Tel: 018 299-1111/2222
Fax: 018 299-4910
Web: http://www.nwu.ac.za

Senate Committee for Research Ethics
Tel: 018 299-484
Feziwe.Mseleni@nwu.ac.za

24 November 2023

ETHICS APPROVAL LETTER OF STUDY

Based on approval by the **Economic and Management Sciences Research Ethics Committee (EMS-REC)** on, 24/11/2023 the Economic and Management Sciences Research Ethics Committee hereby **approves** your study as indicated below. This implies that the North-West University Senate Committee for Research Ethics (NWU-REC) grants its permission that, provided the special conditions specified below are met and pending any other authorisation that may be necessary, the study may be initiated, using the ethics number below.

Study title: INFLUENCE OF MANAGERIAL ETHICAL LEADERSHIP ON CARING CLIMATE AND EMPLOYEE BEHAVIOUR IN SOUTH AFRICAN SMMES

Study Leader/Supervisor (Principal Investigator)/Researcher): Dr D Fourie

Student: EM Rakoma (32186096)

N	W	U	-	0	1	9	6	1	-	2	3	-	A	4
Institution				Study Number						Year			Status	

Status: S = Submission; R = Re-Submission; P = Provisional Authorisation; A = Authorisation

Application Type:
Commencement date: 24/11/2023 **Risk:** Minimal
Expiry date: 24/11/2024
Approval of the study is initially provided for a year, after which continuation of the study is dependent on receipt and review of the annual (or as otherwise stipulated) monitoring report and the concomitant issuing of a letter of continuation.

Special in process conditions of the research for approval (if applicable):

•

General conditions:

While this ethics approval is subject to all declarations, undertakings and agreements incorporated and signed in the application form, the following general terms and conditions will apply:

- *The study leader/supervisor (principle investigator)/researcher must report in the prescribed format to the EMS-REC:*
  - *annually (or as otherwise requested) on the monitoring of the study, whereby a letter of continuation will be provided, and upon completion of the study; and*
  - *without any delay in case of any adverse event or incident (or any matter that interrupts sound ethical principles) during the course of the study.*
- *The approval applies strictly to the proposal as stipulated in the application form. Should any amendments to the proposal be deemed necessary during the course of the study, the study leader/researcher must apply for approval of these amendments at the EMS-REC, prior to implementation. Should there be any deviations from the study proposal without the necessary approval of such amendments, the ethics approval is immediately and automatically forfeited.*
- *Annually a number of studies may be randomly selected for an external audit.*
- *The date of approval indicates the first date that the study may be started.*

n the interest of ethical responsibility, the NWU-SCRE and EMS-REC reserves the right to:

- *request access to any information or data at any time during the course or after completion of the study;*
- *to ask further questions, seek additional information, require further modification or monitor the conduct of your research or the informed consent process;*
- *withdraw or postpone approval if:*
  - *any unethical principles or practices of the study are revealed or suspected;*
  - *it becomes apparent that any relevant information was withheld from the EMS-REC or that information has been false or misrepresented;*
  - *submission of the annual (or otherwise stipulated) monitoring report, the required amendments, or reporting of adverse events or incidents was not done in a timely manner and accurately; and / or*
  - *new institutional rules, national legislation or international conventions deem it necessary.*

The EMS-REC would like to remain at your service as scientist and researcher, and wishes you well with your study. Please do not hesitate to contact the EMS-REC or the NWU-SCRE for any further enquiries or requests for assistance.

Yours sincerely,



Prof Diana Viljoen Bezuidenhout
Chairperson: NWU Economic and Management Sciences Research Ethics Committee

ANNEXURE G: DECLARATION OF LANGUAGE EDITING

cumlaude
language practitioners

Director: CME Terblanche - BA (Pol Sc), BA Hons (Eng), MA (Eng), TEFL

22 Strydom Street
Baillie Park, 2531

Tel 082 821 3083
cumlaudelanguage@gmail.com

DECLARATION OF LANGUAGE EDITING

I, Christien Terblanche, hereby declare that I edited the study titled:

Influence of managerial ethical leadership on caring climate and employee behaviour in South African SMMEs

for **EM Rakoma** for the purpose of submission as a research study for examination. Suggestions were indicated in track changes and application was the responsibility of the author.

Regards,



CME Terblanche

Cum Laude Language Practitioners (CC)

South African Translators Institute accr nr: 1001066